First Copy

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

Vol. 12. No. 1601. Entered as second-class matter, Aug. 27, 1925, Post Office, N. Y., N. Y., Under Act of March 3, 1879. NEW YORK, TUESDAY, NOVEMBER 17, 1931 5 Cents. $12 Per Year

PUBLIC LIBRARY NOV 18 1931 DETROIT

Stewart, Diamond T and Hercules File Answers To Masury Affidavits

All Affidavits Attest Stability of Assembled Truck Producers and Their Products

NEW YORK, Nov. 16.—Three more champions of the assemblers' side of the argument have submitted affidavits for the consideration of Supreme Court Justice Salvatore Cotillo, in the suit brought by Brockway Motor Truck Corporation against the city of New York and the Sanitary Commission, in an effort to secure modification of department of sanitation specifications to include assembled trucks.

The three additional affidavits, which were filed by Joseph L. Greenberg of 165 Broadway, attorney for Brockway, are replies to the affidavit of A. F. Masury, chief engineer of Mack Trucks, Inc., who spoke of assemblers as "in most instances insolvent," and to that of Arthur J. Scaife of White Motor Company. The new affidavits are those of R. G. Stewart, vice-president and chief engineer of Stewart Motor Corporation; C. A. Peirce, chief engineer of Diamond T Motor Car Company, and Charles Balough, president of Hercules Motor Corporation.

Mr. Peirce referred to a statement of Mr. Scaife that during the war he was a member of Class A Design Committee, U. S. Army, and a statement of Mr. Masury that he is now

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R. H. GRANT PLACES G. M. 1932 SALES AT 900,000 CARS

Chicago, Nov. 16.—Upon the authority of R. H. Grant, vice-president of General Motors Corporation that company's divisions plan to sell 900,000 passenger cars in 1932. This objective was announced during an address delivered by Mr. Grant to the Buick Chicago zone organization and leading distributors of other makes of cars here, in which he stated that the automobile market next year should be able to absorb 2,000,000 cars, and that the General Motors quota is 45 per cent. of the number.

In the event that more than 2,000,000 cars in all are sold, Mr. Grant added, General Motors will be willing to get less than 45 per cent. This year's proportion of the total was set at 40 per cent., he said, and to date the General Motors units have sold 42 per cent.

Mr. Grant employed a unique method of gauging next year's automobile market when he asserted that the books of the automotive industry are 12,000,000 miles shy of normal in market depreciation at present and that motor car sales are expected to reflect this deficit in increased sales next year. The

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Polk Revises Estimate of October Sales to 101,000; Near September

Later Returns From Total of Twenty-three States Puts Monthly Sales Above Figure Set Last Week

DETROIT, Nov. 16.—October's record of new passenger car sales may run considerably above earlier estimates of the month's total, it is indicated in complete reports from twenty-three states received by R. L. Polk & Co., compilers of official registration figures for the country.

An estimate made last week on the basis of returns from only eight states placed the probable total sales for the country between 88,000 and 93,000 units but the additional reports now available justify, the Polk Company believes, an estimate that total sales will reach 101,000 units for the month.

Sales in the twenty-three states, which normally account for 37.54 per cent. of the country, aggregated 38,213 units, as against 46,878 units for the same states for September, 1931, and 54,144 units for October last year.

This year's figure is 29.42 per cent. under the corresponding figure

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VALLEY STEEL PLANTS SHOW INCREASE FOR FOURTH WEEK ON END

Youngstown, O., Nov. 16.—Steel plant operations in the Youngstown district this week followed three successive weeks of recovery, with another small gain, this time to 40 per cent., up 3 per cent. from the rate in effect last week. Automobile steel and pipe buying contributed to the upturn.

Increased activity at plants of Republic Steel Corporation and Youngstown Sheet and Tube Company accounted for the increase, which, according to valley trade authorities, is spreading through all departments from blast furnaces to finishing mills.

The current operating rate in Mahoning valley mills is fully 15 per cent. above the low level for the year, reached in October, and is approximately 12 per cent. below the year's high rate so far, attained in March. A small but steady increase in steel buying encourages district manufacturers to believe that further improvement is not far ahead.

Potential automobile steel buying provides a basis for hopes that steel

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CHEVROLET RETAIL SALES IN OCTOBER INCREASE OVER 1930

Detroit, Nov. 16.—Retail sales by Chevrolet dealers to consumers in October totaled 37,921 cars and trucks, it was announced today by H. J. Klingler, vice-president and general sales manager of the Chevrolet Motor Company.

This represented a slight gain over the corresponding month of 1930, when 37,674 units were sold. September sales were 38,685 cars and trucks.

Mr. Klingler stated that retail sales for October were considerably greater than total production during the month, and that as a result dealer stocks are down to a very satisfactory level.

CHEVROLET, GMC TRUCK SALES UP IN COOK COUNTY

Chicago, Nov. 16.—Two individual makes—Chevrolet and GMC—show gains for the ten months of 1931 in new truck registrations in Cook county. Chevrolet has an increase of twenty-nine and GMC thirteen.

Total registrations for the period compared with the ten months of 1930 show a loss of more than 20 per cent. The comparison was 5,239 for 1931 against 6,566 last year.

Ford continued to lead the field. The Model A* loss in commercial car registrations, however, showed a much less percentage than in the passenger car computations. Ford had listed 2,448 trucks in Cook county up to November 1. Last year for the ten months the line had 2,689.

Chevrolet's total was 1,086 which compared with 1,057 for 1930. International Harvester in third place

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Buick First Day Crowds Top 1930 By 50%; Buying Interest Revived

FLINT, Mich., Nov. 16.—Although the returns are not all in as yet, it is apparent that the new Buick line has met with a glorious reception in all sections of the country. Roughly, Buick officials say, the increase in attendance announcement day, last Saturday, was 50 per cent. greater than on the same occasion eighteen months ago when Buick made its 1931 announcement.

What's better still is evidence that the huge crowds were not made up mostly of the curious, for in the hundrdes or more telegrams received from Buick distributing points came the welcome news that many orders were booked the first day.

New York, for instance, declares that its November allotment is not going to be sufficient to care for the sales in sight. Indianapolis sold more cars Saturday morning than it had in the previous three months.

In the Philadelphia sector, 75,000 turned out, 12,500 in Philadelphia proper. In Flint there were 12,500 at the opening.

INTERNATIONAL TRUCK SALES UP 56% IN N. Y.

New York, Nov. 16.—International truck registrations in the New York city metropolitan district for the first nine months of 1931 show an increase of 56 per cent. over those of the same period for the previous year, states E. Burke, manager of the New York City Harvester Company branch.

Late News Flashes

Detroit, Nov. 16.—Nearly 400 Hudson-Essex distributors and their sales managers are here today for a four-day session at the Book Cadillac. Plans for 1932 are being discussed and the field forces are being told about the new line that will be put on the market for the coming year.

* * *

New Haven, Conn., Nov. 16.—Prof. Irving Fisher's wholesale commodity price index for the week ending November 14 shows another upward trend of 0.2 point. This tendency has now been apparent since the first week in October and is looked upon by economists as a favorable sign.

* * *

Los Angeles, Cal., Nov. 16.—Crude oil output in the California field for the week ended November 14 averaged 506,000 barrels per day, an increase of 10,250 barrels over the previous week, according to the California Oil World.

* * *

Kansas City, Nov. 16.—Sales of the Western Auto Supply Co., without consideration of the change in the number of stores in operation, for October, 1931, were $1,120,700, as compared with $1,322,400 in the same month last year. For the first ten months of 1931 the sales were $10,393,200, as against $11,557,000 in the same period of last year.

VIRGINIA TAX CHANGE AFFECTS CAR DEALERS

Richmond, Va., Nov. 16.—The special council committee on revision of the tax code has completed its work, it is learned. The law in reference to the conduct of the used-car business here was amended to require a license tax of $25 for the first warehouse and $50 for each additional plant or display room.

The committee recommended a change in the method of taxing automobiles, in order to conform with the state regulations.

N. T. D. A. Opens Convention In Detroit; Hears Papers

DETROIT, Nov. 16.—The twelfth annual convention of the National Tire Dealers Association opened at the Statler this morning. There will be three days of activities and the meeting will be featured by the presence of several of the presidents of tire manufacturing companies.

Mayor Frank Murphy welcomed the tire dealers to Detroit this morning, following the formal opening of the convention by President Martin J. Barry. The first part of the morning was given up to a discussion of truck and heavy-duty tires, following which H. S. Burdette of the Goodyear Tire and Rubber Company, offered a paper on "Tire Dealers' Rim Problems," which kept the delegates busy until luncheon.

In the afternoon the convention listened to Prof. Horace Secrist, Ph.D., director of the bureau of business research of Northwestern University, on "Business Management," which was followed by a speech by F. B. Davis, Jr., president of the United States Rubber Company.

The big day of the convention will be tomorrow, when a full card is offered. In the morning these papers will be read: "Battery Merchandising" by Harry A. Harvey, sales manager of the USL Battery Corporation; "Brake Service and How to Maintain It," by Harry L. Faust, sales manager of the John Bean Manufacturing Company, and "Wheel Alignment" by Will Damann, president of the Bear Manufacturing Company.

In the afternoon Martin O'Neill,

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American Industry Spent $1,500,000,000 for Fuel in '29

Washington, Nov. 16.—American manufacturing industries spent nearly $1,500,000,000 for all kinds of fuels in 1929, and in addition purchased electric energy to the value of almost $500,000,000, according to a statement issued by the Bureau of the Census, Department of Commerce, for publication November 16.

Compared with 1919, the figures show increases in 1929 in the use of all kinds of fuel except anthracite. The use of fuel oils nearly doubled in that period, and the use of gas more than doubled.

Expenditures for fuel oils totaled $212,639,372 for 6,583,198,995 gallons; for gasoline and kerosense, $7,556,341 for 48,473,195 gallons. The cost of natural gas amounted to $69,869,067 for 388,902,064 thousand cubic feet, and of manufactured gas, to $81,078,049 for 512,831,454 thousand cubic feet. The outlay for all other fuels was $85,384,416.

In addition, manufacturing industries spent, in 1929, $475,634,377 for kilowatt hours of electric energy generated outside their own plants, principally in public service power plants. A large part of this energy was generated by the consumption of fuel in public service power plants, but neither the quantity nor the cost of this fuel is covered by the foregoing figures.

A. P. I. Starts Campaign For Uniform Gasoline Tax

Chicago, Nov. 16.—Developments came thick and fast at the closing sessions of the American Petroleum Institute's twelfth annual meeting here at the Stevens Hotel last week. One of the most significant stands taken was adoption by the board of directors of recommendations made by a special committee in favor of a uniform gasoline tax law in the United States.

The institute's executive committee selected Houston, Tex., for its 1932 convention, which will be held November 15, 16 and 17 at the Rice Hotel in that city. Sentiment is strong for holding the 1933 meetings again in Chicago, in view of the fact that the Century of Progress World's Fair will be the big attraction here two years hence. The institute also decided to support this event through exhibits and other efforts. Support of the elaborate Washington's tri-centennial celebration next year was also decreed by the institute.

In its resolution on the desirability of uniform gasoline tax laws the board of directors made clear that nthe sole reason for an excise gasoline tax is the use of funds so derived for the construction and maintenance of adequate highways; that "through the extravagance of recklessness of public officials" such taxes have been unreasonably increased during the period of almost ten years until they amount to over $500,000,000 annually, or more than wholesale price of gasoline; that the original purpose of the tax has been accomplished and the moneys derived are being diverted to purposes "entirely disconnected from the use of gasoline or the benefit of the users;" that nationwide efforts to evade payment of the tax are extant, the resultant evasion and demoralization of the market being certain to continue unless the rate of taxation is materially and immediately reduced, and that if revenues for other purposes than highway construction and maintenance are to be raised by excise tax upon commodities, they should be made general and not aimed at gasoline, which, after all, is a necessity, not a luxury.

The resolution winds up with the recommendation that "the institute set up such organization and personnel as it may require vigorously to prosecute a campaign to prevent increases and procure decreases in gasoline tax, such activity to be financed by the solicitation of an initial fund of $100,000 from the membership."

LOU SCHNEIDER WINS A. A. A. CHAMPIONSHIP

Indianapolis, Ind., Nov. 16.—Louis Schneider of Indianapolis is the 1931 driving champion of the Contest Board of the American Automobile Association. Louis gained this distinction by piloting his speedy Bowes Seal Fast Special eight-cylinder racing car, not only to victory in the 1931 Indianapolis 500-mile race, but by his performance on the various dirt tracks of the country.

The Contest Board, which is the governing body of organized racing in America, awards its driving championship not for any one spectacular performance of any one particular driver, but for consistency throughout the year, so that the award really means something to its possessor.

HOWARD MARMON BUYS VALUABLE MINERAL LANDS

Bakersville, N. C., Nov. 16.—Four thousand acres of valuable mineral lands, said to contain vast deposits of mica, feldspar and kaolin, located in Mitchell and Avery counties, have been purchased by Howard D. Marmon, high official of the Marmon Motor Car Company, and associates for $100,000.

For the past three or four months a number of men have been employed by the new owners of the property in making tests of the mineral deposits in the area. The tests show the property contains one of the best deposits of kaolin in the United States.

DIAMOND T ADDED 107 NEW DEALERS SINCE JANUARY 1

Chicago, Nov. 16.—Since the first of the year, the Diamond T Motor Car Company has strengthened its organization through the addition of 107 new dealers, it was announced today by E. J. Bush, vice-president and director of sales. The effect, he says, has been to give the company representation in a number of cities and in sections of the country hitherto uncovered. Expansion in the number of foreign sales outlets has also been made.

The decision to increase the number of dealers was chiefly due to introduction of new models which marked the invasion of the Diamond T company into the low-priced bracket with its 1½-ton and two-ton trucks. Another factor was the theory of the company's officials, successfully proved, that more intensive effort in all directions would be required to land sales this year. Increased output, it was felt, would require more sales outlets, and the result has been a continuous gain in orders during the past five months over 1930, the increases having begun with the attainment of quantity production on the low-priced models.

STATE TRUCKING RULE URGED BY RAILROAD HEAD FOR MASSACHUSETTS

Boston, Mass., Nov. 16.—Regulation of all trucking under state supervision was advocated by President J. J. Pelley of the New Haven Railroad when he appeared before the special commission created by the Legislature to study the matter of regulating motor trucks.

The public, he said, and not the railroads or trucking companies should be given first consideration in this regard.

"The solution of this problem requires that each method of transportation must be placed on a self-sustaining economic basis and provide that service for which it is best adapted.

"The establishment of fair competition between the different agencies would be the more economic method of bringing about the desired results. Experience has demonstrated that fair competition can only be maintained through proper regulation and that if the public interest is to be protected unregulated transportation services cannot be sustained over a long period. There is an urgent need for such regulation of the different form of transportation as will prevent unfair competitive methods which threaten the public interest.

"There has been a great deal of talk about regulation, but mostly in generalities. The railroads have been subject to governmental regulation for many years. If it is in the public interest that transportation for hire produced by the railroads should be regulated, then the same public interest requires that all transportation for hire shall be regulated irrespective of the agency producing the transportation."

ONLY ONE CHANGE IN MASSACHUSETTS INSURANCE LAW

Boston, Mass., Nov. 16.—The special session of the Massachusetts Legislature has adjourned after having enacted only one bill affecting the compulsory automobile insurance law. This measure, which was signed by the governor, calls for four days' notice to the insurance company in cases defaulted in court by the insured person. All other proposed changes, including those indorsed by Gov. Joseph B. Ely, were rejected. The purpose of the special session was to amend the compulsory insurance law so as to permit the continuance in 1932 of the 1931 rates without the increases tentatively promulgated by the state insurance commissioner, Merton L. Brown.

An attempt was made November 12 in the House to revive a bill giving motor vehicle owners the option of deductible or full coverage. The bill was rejected by a roll call, 128 to 85.

SPARKS from DETROIT

Peeping Thomas

* * *

The Blue Streak

* * *

Adam Dodge Is 17

* * *

Chris Sinsabaugh—Detroit Editor

AS Peeping Tom I have been peering through factory windows of late, getting a line on the new stuff that is being put through for the coming year. I've seen several of the nineteen-thirty-twoers, but the heck of it is, it's a case of me seeing but saying nothing.

The other day I located a particularly large keyhole and was getting an eyeful when I was caught in the act. There was nothing to do but surrender, of course; but to my surprise I was made a welcome visitor, invited into the holy of holies, given a chance to get a close-up and then taken for a ride. And when I say ride I mean ride—not gangster talk. Only my lips were sealed. I could talk about the big idea, but couldn't mention names. That's got to wait for the company's announcement.

* * *

SO let's call the newcomer the Blue Streak, and let's admit it is being made by one of our big Detroit automobile companies, which, for obvious reasons, withholds its identity for the time being. But the engineers have been liberal-minded in permitting me to give my reaction following the ride I was given, provided I kept mum as to whose proposition it is.

Whirled over the concrete at speeds varying from three to seventy-five miles an hour, I was given a demonstration of the new Blue Streak principle, which is said to be original with this company. I can't give you the technical name of this feature, but I can tell you that lowering the whole frame without reducing the clearance over the axle, and dropping the center of gravity of the body the same distance, have evidently produced a car in which the factor of safety is one of its strongest features.

* * *

ONE demonstration particularly impressed me. Swinging an S turn under a bridge at sixty miles an hour, there was a noticeable absence of any side sway tendency which so often alarms us. The Blue Streak ran along on an even keel as if on a perfectly straight road. You didn't lean in a futile effort to prevent tipping over; you felt safe.

Right here, let me say I feel this Blue Streak principle is going to cure many a driver of the dangerous practice of cutting into the other fellow's territory when swinging corners, because you find this car holds the road so easily that you don't have to worry over possible capsizing, which is largely responsible for this bad habit.

* * *

THAT'S only one of the features of this principle. Another point that hit me was the ease of steering made possible by this construction. Traveling at speed, the car was controlled by the finger tips; the driver even took his hands off at eighty without a swerve. If I'd been driving, I would have been gripping the wheel high up with both hands, alert to prevent the car getting out of control. Not so with my pilot; he knew his stuff and satisfied me that the Blue Streak's roadability is something we are going to hear a lot about next year.

* * *

ANOTHER birthday to write about. This time it is Adam Dodge's, Adam being the first car off the line seventeen years ago last Saturday, when Dodge Brothers' factory started production of automobiles following a brilliant career as engine builders. Since that time the old boat has covered more than 350,000 miles and is still active. Since that first Dodge, 2,589,645 other Dodges have been put forth.

First to sign a Dodge contract was the Cumberland Motor Sales Company of Nashville, Tenn., owned by Col. John Cheek, then head of the Cheek-Meal Coffee Company, making the famous Maxwell House coffee, and his son, John, Jr. Because of this, they got the first car, now old Adam Dodge. Of course they sold Adam, but two or three years ago John, Jr., who now runs the business and who still is a Dodge dealer, realized Adam's sentimental value. He located Adam and brought him back into the family. Adam still is a lusty veteran and is paraded on state occasions to demonstrate the longevity of Dodge products.

Morse Equipped Passenger Cars

AMERICAN
Cadillac V-8
Cadillac V-12
Cadillac V-16
Chrysler 8
Chrysler 8 De Luxe
Chrysler Imperial 8
Continental Motors
De Soto 6
De Soto 8
De Vaux 6-75
Dodge Bros. 6
Dodge Bros. 8
Durant 6 (614)
Durant 6 (617)
Essex 6
Hudson 8
Hupmobile 8 (C-100)
Hupmobile 8 (H-133)
Hupmobile 8 (U-133)
Hupmobile Century 8
La Salle 8
Lincoln 8
Oakland V-8

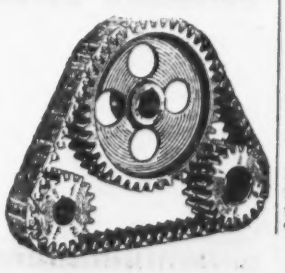
A manufacturer of high grade eights (Name on request)
Peerless 8 (Model B)
Peerless 8 (Model C)
Pontiac 6
Reo Flying Cloud 6
Reo Flying Cloud 8
Reo Royale 8

FOREIGN
Adler
Audi
Brennabor
Fiat
Hansa Lloyd
Vauxhall
Wanderer Werke
Zschopauer

In this day and age when so much is heard about the importance of leadership it might not be amiss to point out the fact that Morse Genuine Silent Timing Chains have led their field for 19 years with an ever increasing majority each year . . .

MORSE CHAIN CO., Ithaca, N. Y.; Detroit, Mich.
Morse Chain Company, Limited, Letchworth, Herts, England
Division of Borg-Warner Corporation

MORSE
GENUINE *SILENT* CHAINS



This Dealer Inventories His Car Salesmen

Goad Motor Co. of San Antonio, Tex., Finds This System Keeps Men Alert and Enthusiastic, Two Chief Essentials in Selling

FOR years automotive firms have given considerable attention to the inventory of stocks, merchandise on hand, equipment and other assets, but have given little attention to the inventory of their salesmen. This custom, which is as great as, or even more, important than, a knowledge of assets, has been practiced with some success by the Goad Motor Company of San Antonio, Tex. C. J. Bender, retail sales manager for the Oakland-Pontiac division of this firm, relates how this has been accomplished.

"A thorough knowledge of the conduct of salesmen is one of the prime requisites to the sale of automobiles," Mr. Bender stated. "A salesman must be kept alert, aware of the features of the automobile he sells, and quick to grasp any opportunities for creating prestige or closing a sale.

"Enthusiasm is essential to selling. If a man cannot enter into a sale with enthusiasm, he cannot give it his interest and thus cannot give his best efforts. At the present time we are all looking forward to the new models which will come out in January. We have become educated to looking forward to improvements, changes in design and new features in the models brought out at this time.

"Frankly, I think dealers spend too much time in thinking of new models, and not enough in thinking about sales. We have the same models on our floor today that we had last January. Those new models that were brought out then were an attraction, and we sold a great many of them because we were enthusiastic about them. I firmly believe that if dealers and salesmen would show as much enthusiasm for the models that stand on their floor now as they did for them last January there would be little cause for complaint in the automotive industries.

"We have come to the point where we give too much attention to trade-ins and not enough to selling. Instead of selling a prospect on the features of a new automobile, we sell him on the amount we can allow him on his old car. There are many dealers who have several lots glutted with used automobiles which they would be glad to sell at almost any price.

"At the present time we have only thirty-three used cars on hand. Every week we bring out a report of the used cars on hand, supplementing it through the week with other reports, if sales are sufficient to justify them.

"It is more important to have a salesman enthusiastic about the new car he has to sell than on how much more he can allow on an old one. Every person has some secret admiration about a car that it is up to the salesman to discover and develop. It may be in the motor or chassis, it may be in the body lines, the color, the upholstery, or the speed. By bringing out the various features of a car, a salesman can discover which of these interests the prospect the most, and then govern his sales talk accordingly.

"Courtesy is another essential in selling. You can walk into a dozen sales rooms today and wait around as long as fifteen minutes before any one knows you are there. Then, in case you do happen to be discovered, you are approached with suspicion and a fear that you might be interested in a car.

"I can give a concrete example of what happened right here in our place of business a few months ago. Two of our salesmen were sitting in the easy rockers provided for guests discussing hard times, when a man walked into the salesroom. They both eyed him apprehensively and finally one inquired of the other, 'I wonder what that old fool wants?'

"They finally decided that he probably wanted to make a payment on his car, or get something in the service department, and went back to their discussion of hard times. Another man finally waited on the visitor and sold him a car. This is an illustration of what takes place in hundreds of dealerships every day, but in many cases the visitor is compelled to go somewhere else for want of a little courtesy and consideration.

"One month last summer one of our salesmen became ill and had to go to the hospital. When he came out he was in debt, he had but a little money coming to him and he was somewhat discouraged. I called him into the office, talked with him for a while and sent him out enthused with ideas for selling automobiles. That month he sold eight new cars and six used cars, in one of the dullest months of the year. It just goes to show what can be done if you really want to do something.

"Let us assume that you are trying to sell me a subscription to Automotive Daily News. You show me the paper and point out a report that the Blank Company is going to bring out a new model. I am not interested. Another concern has made several changes in its personnel. I am not interested. But pretty soon you show me an item which states that the sale of the make of car I handle has shown an increase in sales over other cars in the same price class for the third quarter, based on new car registration. I am interested and I begin to take the paper seriously. There is something to it, now, that I like.

"You see that at last you have my interest aroused, and you follow it up by bringing out other information along the same lines. In a short time I realize that here is something that I should have, so I subscribe.

"The same applies in selling an automobile. You have to find that part of the car in which the prospect is interested and then go to work. The salesman who depends upon his friends or the firm to bring in prospects is not going to get very far. He has to develop them himself. He has to plan his day so that he will produce a maximum amount of work. He may not have success the first day, nor the second, but if he keeps plugging along, sooner or later, he is going to run across some live prospects and make some sales.

"We had a man come in and express an interest in one of our automobiles a few weeks ago. After we had shown him the models and told of some of the features he began to inquire what we would allow him on his old automobile. Right here is where many dealers disregard all selling practices and take up a swap or bargaining attitude.

"I do not say that we have not done the same thing; for if we had not come to a realization of the evils of such a practice we might still be doing it. But we have found that by hard work there is just as good results to be obtained by selling and more profits made than by forcing a sale through trade-ins.

"The salesman on this deal avoided the inquiry and offered to take the prospect out for a drive so his wife could see it. This was done, and the man and wife became enthused about the car. When the time was ripe for closing the sale, they were more interested in possessing a new car than they were in what they would get for their old one. We closed the deal at a good profit.

"I would fire a man quicker for being discourteous than for any other fault. Even though the person who comes into our salesroom is not a prospect, he is a guest and is entitled to the same courtesy which we would show in our home. The man who is a visitor today may be a customer tomorrow, and the prospects for bringing this about are greatly enhanced by showing him courtesy the first time.

"If dealers took inventory of their salesmen the same as they did their spare parts, they would discover some things that would bring about quick changes, both in personnel and in sales. All the effort put into the maufacture of a car may be lost through poor salesmanship."

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Emphasizes Honest Values

It Costs No More To Get A

Square USED CAR DEAL

The careful Used Car Buyer looks for that correct combination of quality and price which are based on sound merchandising policies and results in

HONEST VALUES

On that basis, let us help you select the used car you need from our complete and varied assortment of standard makes.

All of these cars were acquired by us within the last two months, under present market conditions.

You Will Not Be Asked to Pay for Appraisers' Mistakes of Last Spring.

Every high grade car has been carefully reconditioned—our comparatively small current stock allows us to give each car the proper attention—and is ready to uphold the BUICK reputation for VALUE with every thousand miles it runs.

Judge These Offerings for Yourself:

1930 Buick Coupe — Country Club Model; like new. Sold originally at $1385 — $1025

1930 Dodge Sedan — 8 cyl. Just like a new car. Must be seen to be appreciated — $725

1929 Nash Sedan — 2 door; Advanced Six. Brand new rubber, paint, upholstery perfect. Run only 16,000 miles — $725

1930 Studebaker Sedan — Commander 8. Looks and runs like new. Fully equipped. Finish and tires perfect. Motor excellent. — $845

40 OTHERS TO CHOOSE FROM PRICED FROM $50 TO $1100

"Compare The Values"

Easy Terms — Liberal Trades

THE ARTHUR L. CLARK CO., INC.

2475 FAIRFIELD AVE.

Open Evenings — Open Sundays

THIS newspaper copy o fthe Arthur L. Clark Company, Buick dealership of Bridgeport, Conn., stresses the fact that used cars being offered were recently taken in, and are not holdovers from many months ago

Here Is One Jobber Salesman Who Should Get Real Welcome

HARRY (GEOHGIA) SANDERS, who hails from Atlanta, is preparing for a hard northern winter. Mr. Sanders, who has been connected with the automotive replacement parts industry for some time, has just been appointed traveling representative for the Accurate Parts Manufacturing Company, Cleveland, O.

What's worrying him is that he will contact jobbers in Illinois (except Cook county), Wisconsin, Minnesota, North Dakota and South Dakota, and the winters in these regions are anything but mild.

However, Mr. Sanders, being a resourceful young man, and knowing full well that his familiar "Geohgia" Januarys differ considerably in temperature, snowfall and so forth, from North Dakota Januarys, has taken ample and novel precautions.

In fact, with the help of the sales promotion department of the Accurate Parts home office, Mr. Sanders has prepared special January bulletins advising jobbers in his territory how much he would appreciate their having hot coffee and a warm welcome ready for him.

At the present time Mr. Sanders is negotiating for a 418-pound St. Bernard (450 pounds fully equipped) whose lifting capacity is estimated at one keg and two flasks—full—which he intends to take along with him as a traveling companion.

We are sure that jobbers will welcome the St. Bernard (fully equipped) and Mr. Sanders.

FACTORIES INTERESTED IN NEWARK, N. J., SHOW

Newark, N. J., Nov. 16.—Factory sales managers are taking a keener interest than ever in the automobile shows to be held in the winter, according to Claude E. Holgate, manager of the local show. Mr. Holgate has received letters from more than a dozen factory officials asking for details of the Newark show, which will be held January 16 to 23, and is rated among the big shows of the country.

LEASES MORE SPACE FOR BUICK SERVICE

St. Louis, Mo., Nov. 16.—Rederer-Rengers Buick, Inc., has leased the three-story building at the north east corner of Locust Street and Cardinal Avenue. The space will be used for the sale and servicing of Buick automobiles, it was stated.

J. F. DELL PROMOTED

Cincinnati, Nov. 16.—G. K. Crocker, president of the Crocker-Cadillac Company, Cadillac-La Salle distributor, announces promotion of John F. Dell to the position of vice-president and assistant general manager.

NEW GARAGE CONCERN

Worcester, Mass., Nov. 16.—The Handleman Garage, Inc., has been formed here by Ralph Handleman and Benjamin H. Goldberg, both of this city. The concern will do a general garage and service business and will stock parts and accessories.

"WE don't know of any other line with the many sales advantages of Willys-Overland:—all the important price classes, passenger cars and trucks. This coverage gives the dealer a chance to sell anybody."

—West Side Motor Co.
Seligman, Ariz.

Write or wire for particulars of this profit-building franchise

WILLYS-OVERLAND, INC.

TOLEDO, OHIO

Willys-Overland, Ltd., Toronto, Canada

WILLYS SIXES AND EIGHTS

WILLYS-KNIGHTS

WILLYS SIX TRUCKS

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

Published Every Day Except Sunday and Monday by
AUTOMOTIVE DAILY NEWS PUBLISHING CORPORATION,
350 Hudson St., New York, N. Y.
O. J. Elder, President. H. A. Tarantous, Vice-President. Alexander Johnston, Secretary.
Entered as second-class matter August 27, 1925, at the post office at New York N. Y., under the act of March 3, 1879.
350 Hudson St., New York, N. Y. Telephone CA nal 6-1000

Member A. B. C.

Mail subscriptions to CIRCULATION DEPARTMENT 350 Hudson St.
Subscription Rates—One year, $12.00; two years, $20.00, for United States and Canada, also Mexico, Cuba and Panama.
To Other Countries—One Year, $15.00; two years, $26.00. Single copies, 5 cents.

TUESDAY, NOVEMBER 17, 1931

ADVERTISING AND BUSINESS HEADQUARTERS

Harry A. Tarantous, Business Manager. 350 Hudson St., New York, N. Y.
George M. Slocum, Manager Detroit Bureau, 427 Fisher Building, Detroit, Mich., phone Trinity 2-3500; Willard R. Cotton, Western Manager, 333 North Michigan Ave., Chicago, Ill., phone Andover 2400; Metz B. Hayes, New England Manager, Little Building, Boston, Mass.; Blanchard, Nichols & Coleman, American National Bank Building, San Francisco, Cal.; Lincoln Building, Los Angeles, Cal.; 1037 Henry Building, Seattle, Wash. Address ALL advertising and business correspondence to 350 Hudson St., New York city.

EDITORIAL DEPARTMENT

350 Hudson St., New York, N. Y. Telephone CA nal 6-1000
Alexander Johnston, Editor. William C. Callahan, News Editor.
Statistical Department (registrations and specifications), P. J. Robas, statistician; Engineering Department, A. Benson Carleton, technical editor; Merchandising Department, Charles S Zack, editor Art Department, John Bauerfeld, director.
Detroit Bureau, Chris Sinsabaugh, editor, 427-8 Fisher Building, Detroit, Mich. Telephone Trinity 2-3500. Contributing editor, John C Wetmore.

The Banks' Duty

IN a report from a committee on employment plans of President Hoover's organization for unemployment, there is a suggestion that American bankers will do well to ponder. The chairman of the committee making the report is Harry A. Wheeler, a Chicago banker, which lends added weight to the suggestion. Mr. Wheeler says:

"In addition to expansion of basic credit facilities, including those already instituted by the President, bankers of the United States may make their effective contribution to the national program for resumed normal activities through assuming as liberal and encouraging an attitude as possible toward credit requirements of their average customer. In considering extension of credit lines bankers might now give due weight to intangibles, to broad conditions influencing credit reports and to the related interests of the country and the general public."

We do not have to go further than our own industry to find a case very much in point. Automobile dealers during the past two years have had credit difficulties. Banks have frowned upon credits except for the most stringent needs. This has been one of the factors keeping automobile sales at the low levels that have held during 1931. Perhaps the banks in taking this stand have served a useful purpose by discouraging undue optimism on the part of some dealers.

But we are now facing a different state of affairs. The dealer position has been liquidated as never before. Inventories of cars, both new and used, have been steadily reduced until they are lower than they ever have been in recent history. Dealers who have survived the cyclone are in a position to take advantage of business revival. There is now every indication that buying next year will be on a very much more vigorous basis than it has been during 1931. This will most assuredly include the buying of motor transportation units to replace those worn out during the period of depression, when purchases were delayed.

If our dealers are to be able to take full advantage of the possibilities that will develop with the increased tendency to spend money for necessities, they have got to have the support of the banks. They have got to have reasonable credit to enable them to supply rising demand. Naturally the bankers will want to be the judges of what constitutes "reasonable credit," but they must alter their point of view to the developing situation. In Mr. Wheeler's words they must assume "as liberal and encouraging an attitude as possible toward the credit requirements of their average customer." Of whom the automobile dealer is assuredly one.

The Twelves Are Coming

SOME weeks ago the Automotive Daily News in this column predicted that 1932 would see a considerable influx of twelve-cylinder engines. Dangerous as prophecies are, they sometimes come true, and already we are beginning to get the solid basis of fact for a "we told you so" campaign.

The announcement from Pierce-Arrow, one of the pioneer manufacturers of our industry of its 1932 line, disclosed two twelve-cylinder chassis and one eight. This is the first advent of Pierce-Arrow into the twelve-cylinder field and the company's traditional position makes it an interesting event.

This coming of the twelves is a perfectly logical development. It is the doubling of the sixes, exactly as the eight was a multiplication of the four, with the prime object of gaining operating characteristics pleasing to the car owner.

And the end is not yet. There will be other twelve-cylinder announcements following on this one.

Trade Association News

Minnesota M. T. A. Issues Bulletin on 1931 Business

THE Minnesota Motor Trades Association has recently issued a bulletin to its members regarding business done during the year 1931 and some pertinent suggestions for improvement in the coming year. The bulletin follows:

The dollar volume of new and used car sales for Minnesota in 1931 will probably exceed $40,000,000. Out of this huge volume it is doubtful if the retailers collectively will salvage a single dollar of profit.. Naturally such a condition causes a great deal of unrest and uncertainty. "What of the future of automobile retailing?" is a logical question.

In an attempt to analyze the situation there appear to be certain well established facts and some opinions rather widely expressed.

Among the facts are these:

1. Most dealers will lose money in 1931.

2. Dealers are now "facing facts fearlessly."

3. Overhead has been adjusted to correspond as nearly as possible to the available sales volume.

4. Shop work during 1931 has been fair to good and paid a reasonable profit.

5. New and used car inventories are not excessive at the present time, except in a few instances where factories have forced dealers to take cars beyond their requirements.

Among the important opinions are the following:

1. Dealers should build adequate reserves during periods of good business in order to insure their continued operation during depressions.

2. New car sales possibilities will not be any greater in 1932 than they were in 1931.

3. Actual sales will probably be less. Dealer capital has been so dissipated during the past few years that dealers cannot afford to take any more used car losses. This means less new car sales in 1932.

4. The market for used cars is decreasing.

Used car over allowance has been the chief contributing factor in the losses which have been sustained by the dealers during 1931. In other words, used cars have been purchased at too high a price. The association supplies every member with a Blue Book. However, many of our members have criticized the Blue Book as showing too low a price for used cars. Now that the year is over, we know positively that if the Blue Book had been adhered to, these used car losses would have been reduced by such an amount that a net profit would have been made by the average dealer. In a few instances in which dealers have a surplus stock of used cars and are selling them under a forced sale, the prices which they are securing for them are almost identical with the suggested Blue Book resale prices. An adherence to Blue Book prices in 1932 will assure the trade a profit.

What of the future of this business? We believe that the outlook for the good dealer is particularly bright at the present time. The trade has learned a very costly lesson. Those who are left have generally resolved to do things differently in 1932. There will probably be 30 per cent. less dealers in Minnesota in January, 1932, than there was in January 1931. Hense, the available volume will be divided among fewer retailers.

The automobile is an accepted method of individualized transportation. It is an economic necessity. People will continue to drive and buy new automobiles until such time as a better means of transportation is introduced. All things being considered, we are of the opinion that from now on more money can be made in this business than has been made in the past few years. Of course, the future for most dealers is somewhat dependent upon what the factory which they represent has to offer in the way of constructive assistance.

COMING EVENTS

NOVEMBER

23-Dec. 9—**Brussels, Belgium.** Automobile Salon.
29-Dec. 5—**New York, N. Y.** Automobile Salon, Hotel Commodore.
30-Dec. 4—**New York City.** American Society of Mechanical Engineers, annual meeting.

DECEMBER

7-12—**Atlantic City, N. J.** Motor and Equipment Association and National Standard Parts Association. Joint Trade Show.
9-11—**Atlantic City, N. J.** American Insitute of Chemical Engineers, meeting.

JANUARY

9-16—**New York City.** National Automobile Chamber of Commerce. National Automobile Show.
9-17—**Los Angeles.** Annual Automobile Show of the Los Angeles Motor Car Dealers Association.
10-13—**Chicago.** National Wheel and Rim Association, annual convention. Edgewater Beach Hotel.
11-14—**Detroit, Mich.** American Road Biulders Association, twenty-ninth convention and show.
14—**New York City.** Society of Automotive Engineers, annual dinner Pennsylvania Hotel.
16-18—**Detroit, Mich.** National Tire Dealers Association, annual meeting.
16-23—**Newark, N. J.** Newark Automobile Dealers' Association's annual show.
16-23—**Buffalo, N. Y.** Annual automobile show of Buffalo Automotive Trade Association, Inc., 174th Regiment Armory
17-18—**Chicago.** National Assoication of Finance Companies, annual meeting.
17-23—**Cincinnati.** Automobile show of Cincinnati Automobile Dealers' Association.
17-23—**Milwaukee.** Annual Automobile Show, Milwaukee Automotive Trades, Inc.
22-30—**New York.** National Motor Boat Show, Grand Central Palace.
23-30—**Detroit, Mich.** Annual show, Convention Hall.
23-30—**Baltimore.** Annual Automobile Show.
23-30—**Minneapolis.** Annual Automobile Show of Minneapolis Automobile Trade Assoication.
23-30—**Pittsburgh.** Annual automobile show of Pittsburgh Automobile Dealers' Association, Motor Square Garden.
25-29—**Detroit, Mich.** Society of Automotive Engineers, annual meeting, Bok Cadillac Hotel.
30-Feb. 6—**Cleveland.** Annual Automobile Show of the Cleveland Automobile Manufacturers and Dealers Association, Public Auditorium.
30-Feb. 6—**Chicago, Ill** National Automobile Chamber of Commerce. National Automobile Show
30-Feb. 6—**Chicago, Ill.** Automobile Salon Hotel Drake.

FEBRUARY

6-13—**St. Paul.** Annual Automobile Show. St. Paul Automobile Dealers, Inc.
13-20—**Kansas City, Mo.** Annual Automobile Show. Kansas City Motor Car Dealers' Association. American Royal Building.
13-20—**Los Angeles, Cal.** Automobile Salon. Hotel Biltmore.
22-March 5—**San Francisco, Cal.** Automobile Salon, Palace Hotel.

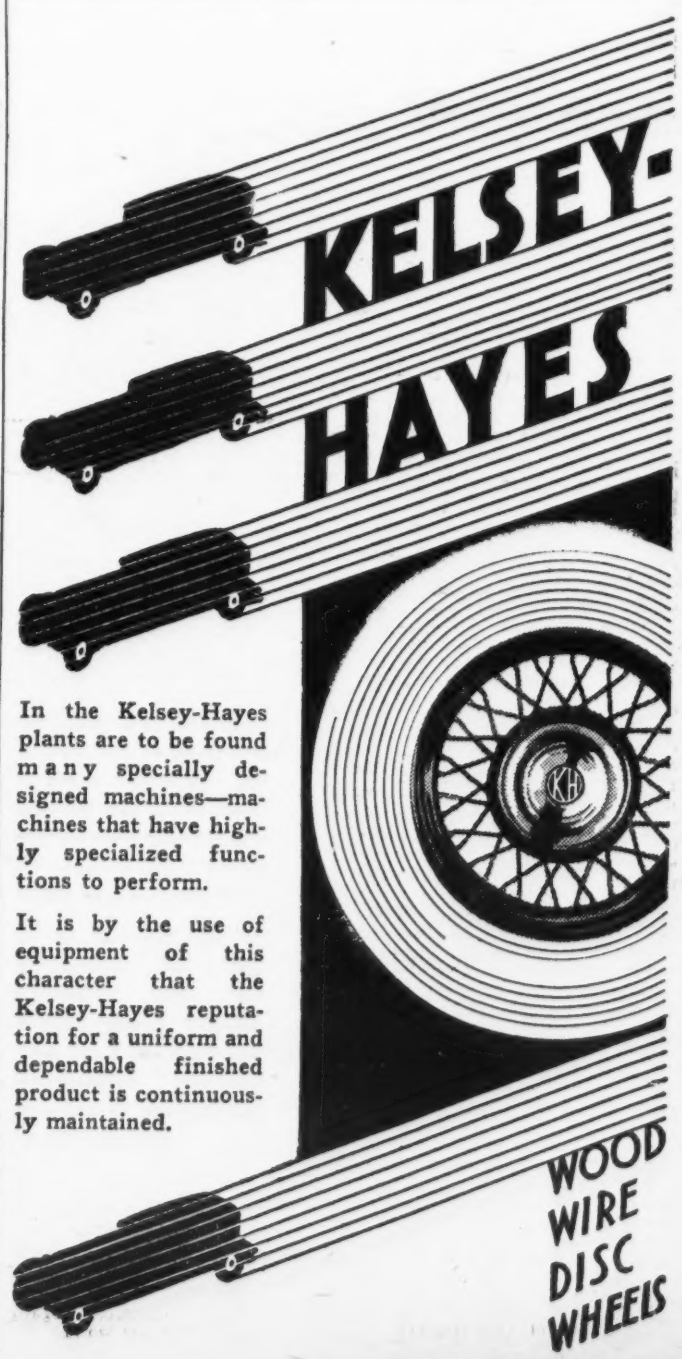
TRUCK FLEET HAS 73,121 HOURS SAFETY RECORD

Jersey City, N. J., Nov. 16.—A total of 73,121 vehicle hours without a single traffic accident the past two years is the record that a fleet of twelve truck drivers of the Corn Products Refining Company of Edgewater have to their credit. The excellence of this record may be appreciated by the fact that the trucks which they drive travel through the congested districts of New York, Brooklyn, Jersey City, Long Island and Newark.

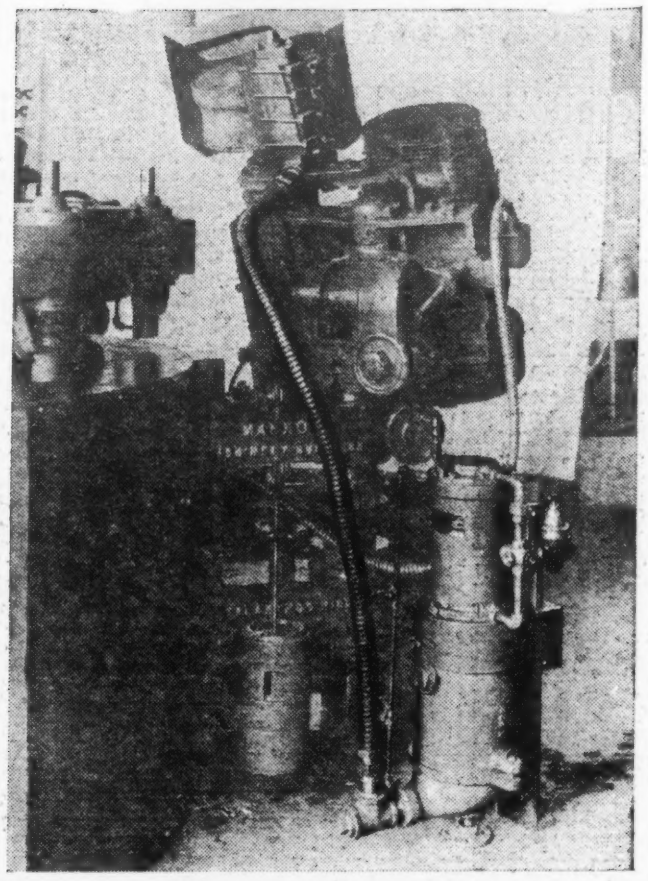
The drivers are required to report any accident in which the vehicle is involved, whether in motion or temporarily parked, stopped, being loaded or unloaded, resulting in either personal injury or property damage, irrespective of who is at fault. The nearest rivals to the Corn Products drivers have but 42,596 vehicle hours in the inter-fleet drivers' safety contest sponsored by the Hudson County Safety Council.

W. O. WILSON NAMED AS SALES MANAGER

Dallas, Tex., Nov. 16.—John E. Morriss, president of the John E. Morriss Company, local Chevrolet dealership, has just announced the appointment of W. O. Wilson as sales manager of his company.


KELSEY-
HAYES
In the Kelsey-Hayes plants are to be found many specially designed machines—machines that have highly specialized functions to perform.
It is by the use of equipment of this character that the Kelsey-Hayes reputation for a uniform and dependable finished product is continuously maintained.
WOOD
WIRE
DISC
WHEELS

Automatic Composition Feeder for Polishers And Buffers



For use on polishing and buffing machines of the full automatic and semi-automatic types and for hand polishing and buffing lathes now in service, Hammond Machinery Builders, Inc., Kalamazoo, Mich., has developed an automatic paste composition feeder. This device reduces cost of both material used and time of applying composition to polishing and buffing wheels.

It is operated by means of compressed air and the composition paste is delivered through a distributing nozzle directly onto the polishing or buffing wheel. The centrifugal force of the wheel carries the composition to a collector pad which is clamped on one end of the nozzle. Collector pad presses against the polishing wheel, applying a pre-determined film of composition. The proper amount of composition necessary can be fed to the wheel either constantly or intermittently.

If the latter is preferred, either a hand or foot control is supplied. Feeding nozzle is equipped with an adjustable discharge spout which may be adjusted for flat, irregular or curved contours of the wheel. This nozzle is supplied in sections and can be built up to lubricate any width of wheel. A flexible hose permits a wide adjustment of contact points.

Meet the Sales Chiefs

FROM the export offices of the American-LaFrance and Foamite Corporation in New York, Ralph M. Wood supervises the company's export sales, with the exception of those under the jurisdiction of the affiliated Canadian and British companies.

Mr. Wood has been closely connected with the automotive industry, and particularly its export problems. In 1920 he joined the General Motors Export Company, and for three years served in their traffic department, being in charge of freight-booking work. The following year he worked in the South American division of their sales department. He then served as assistant to the general sales manager, and later as assistant to the executive vice-president until he went to South America in 1926. At Buenos Aires he was assistant to the regional director, and organized the supply department at that point before moving on to Uruguay and Brazil. That fall he was appointed supply manager at Argentina, and had charge of sales forecasting, inventory, purchasing and traffic.

In 1928 Mr. Wood went to Berlin as assistant managing director of the assembly plant in charge of organizations. When the Adam Opel organization came into the General Motors family Mr. Wood was placed in charge of the Opel export department. In this capacity he had the responsibility of organization and sales of Opel cars throughout the world. He personally contacted over 200 dealers in seventeen countries of Europe.

In 1930 Mr. Wood joined the American-LaFrance and Foamite Corporation in the capacity of export manager. He is now endeavoring to increase the sales of American-LaFrance motor fire apparatus to foreign municipalities and Foamite fire extinguishing equipment to industrial and commercial organizations throughout the world.

OCTOBER SALES HOLD CLOSE TO SEPTEMBER MARK

(Continued From Page 1)

for the same states a year ago, and 18.49 per cent. under September, 1931.

If the total for October reaches 101,000 cars, it will be a decline of 55.75 per cent. from the five year average of 230,066 units.

October sales in 22 states, representing 33.77 per cent. of the country, total 7,691 units, compared with 10,341 units a year ago, and 8,773 units a month ago, for the same states.

The October figure is 25.63 per cent. under October of last year, and 12.33 per cent. under September, 1931.

The October total is expected to approximate 22,700 trucks, which would be 39.20 per cent. under the five year average of 37,458 units.

N. T. D. A. SESSIONS OPEN IN DETROIT

(Continued from Page 1)

manager of dealer relations of the Firestone Tire and Rubber Company, will discuss "Tire Sales from a Super Service Standpoint," and "Tire Sales from a Strictly Tire Standpoint" will be presented by a speaker as yet unnamed. Following that there will be an open discussion from the floor on "What My Local Association Has Accomplished."

In the evening there will be the annual banquet which will be attended by sales managers of tire manufacturers and members of the board of directors of the N. T. D. A.

The third day is a short session, with the feature "Opportunity of the Independent Dealer" by S. B. Harper, director and past president of the association. "Tire Dealers Advertising Problems" will be discussed by a speaker to be selected.

PETROLEUM INSTITUTE ANSWERS CHARGES MADE IN TEXAS LITIGATION

Chicago, Nov. 16.—An answer was made today by Amos L. Beaty, president of the American Petroleum Institute, to the suit brought by the state of Texas through Attorney General James V. Allred, in which ouster from the state is sought for fifteen oil companies, the institute and the Texas Petroleum Marketers' Association, together with maximum fines of $17,850,000, on a charge that a nation-wide conspiracy has been created by them to control gasoline and oil prices and to throttle the small independent dealer.

"The suit brought by the attorney general of Texas is not easy to understand," says Mr. Beaty in his statement. "As reported by the press, it is an attack upon the petroleum industry of the United States and the Federal Trade Commission as well.

"The code of marketing practices was promulgated by the Federal Trade Commission in this instance just as the commission has promulgated similar codes for more than one hundred other industries. This was after full public hearing and in accordance with the regular procedure of the commission.

"The code has been accepted by more than 16,000 members of the industry. The acceptance in each instance was filed directly with the Federal Trade Commission. In the early part of this year, the entire matter was reviewed by the commission, another public hearing was held, and the code was again approved.

"The purpose of such a code is to control a regularity in business and promote fair trade practice."

TENNESSEE TRUCKERS ELECT NEW OFFICERS

Nashville, Tenn., Nov. 16.—The Tennessee Motor Truck Association held its annual meeting at the Andrew Jackson Hotel a few days ago. The following officers were elected: Ernest Chadwell, president; B. C. Johnson, Chattanoogo, first vice-president; J. M. King, Nashville, re-elected secretary-treasurer.

G. E. Salvages $16,000 a Year By Careful Sifting of Incinerator Ashes

SAVINGS of approximately $16,000 a year are realized from salvaging metals from ashes produced in the scrap incinerator at the Schenectady plant of the General Electric Company.

The ashes, instead of being loaded into a dump car and delivered to the dump, are first run through a ball mill, where they are pulverized, the larger pieces of metal passing out of the mill and over a magnetic separator, which separates the magnetic scrap from the non-magnetic material, which consists of copper, brass, aluminum, etc.

The finer material which is discharged from the ball mill passes over an inclined, longitudinally grooved "concentrating table," which has a stream of water flowing crosswise of the material.

The metal, being heavier than the ash, slides down the bottoms of the grooves and falls off the lower end of the table, while the ash is washed off the side of the table and is then pumped through a "dewatering cone," which discharges the dewatered ash in a dump car. The ash is used for filling in low ground and the metals and concentrates are sent to the smelter or sold as scrap.

By this method approximately 100,000 pounds of ashes are ground and washed and from 20,000 to 25,000 pounds of metal and high-grade smelting material is recovered each month.

PERFORMANCE THAT SELLS MOTOR CARS

The Marmon Sixteen wins the Stevens Trophy. Above, getting the checkered flag of victory. At right, the trophy now in the possession of the Marmon Company

1834 MILES IN 24 HOURS ON INDIANAPOLIS SPEEDWAY

MARMON SIXTEEN MAKES GREAT NEW STOCK CAR RECORD

In this day when performance is so important in selling motor cars, the great new stock car record of the Marmon Sixteen bears the utmost significance. Traveling 1834 miles in 24 continuous hours on the difficult brick track of the Indianapolis Speedway, a standard Sixteen closed car won the Stevens Trophy—and with it, a tribute such as comes to the performance of few motor cars. Averaging 76.4 miles an hour, the Sixteen beat the old record by 191 miles in distance and by nearly 8 miles an hour in average speed. The A. A. A. had full supervision of the event. Here is performance that really sells motor cars—that is selling the Marmon Sixteen today.

MARMON 16

200-HORSEPOWER, ALL-ALUMINUM ENGINE

CHEVROLET, GMC TRUCK SALES UP IN COOK COUNTY

(Continued from Page 1)

had 407 as against 492 in 1930. Diamond T occupied fourth position with 250 against 423 last year.

Dodge had 201 for fifth place and GMC was sixth with 161. The General Motors line listed 148 for the period last year.

Mack and Nelson Le Moon tied for seventh place with 60 each. Mack had less than half of its total for 1930, while Nelson Le Moon was only 26 trucks off.

Chevrolet was enabled to gain a lead for the ten months by its increase in October over the same month a year ago. It had 105 for last month compared with only 56 in October, 1930. Ford had 125 last month and 243 a year ago.

Other trucks to show gains for October this year over last were Diamond T, International and Dodge.

The standing for ten months of 1931 compared with the same period last year follows:

	1931	1930
Ford	2,448	2,689
Chevrolet	1,086	1,057
International	407	492
Diamond T	250	423
Dodge	201	243
GMC	161	148
Nelson Le Moon	60	86
Mack	60	125
Available	59	80
Walker	47	71
Reo	41	98
Federal	35	40
White	34	134
Indiana	33	42
Sterling	33	54
Autocar	31	56
Studebaker	28	6
Hendrickson	23	36
Chicago	22	53
Stewart	20	23
Divco	20	17
Willys	19	5
Whippet	14	13
Rieland & Bree	13	16
Service	11	1
Relay	6	12
Acorn	4	8
Stoughton	3	0
King Zeitler	3	24
Fargo	3	31
Republic	3	12
Willys-Knight	2	9
Yellow	2	17
Dover	2	3
Gramm Bernstein	2	0
Gotfredson	1	4
Master	1	0
Miscellaneous	45	212

SCULLY, ILLINOIS STEEL CONSOLIDATE OPERATIONS

Chicago, Nov. 16.—The Scully Steel and Iron Company, and the Illinois Steel Warehouse Company, have consolidated their offices and warehouses at 1319 Wabansia Ave., in this city under the name of the Illinois Scully Steel Warehouse Company. The new concern offers a comprehensive line of rolled steel products, machinery, small tools and specialties.

BUS LINES MERGED

Trenton, N. J., Nov. 16.—The State Board of Public Utility Commissioners has permitted the Trenton Transit Company to consolidate two bus routes operating between Trenton, Freehold and Asbury Park.

MAJOR SPECIFICATIONS AND MECHANICAL DETAILS

Make and Model	Weight—5-P. Sedan	Wheel Base	Engine Make	Thermostat Used	Valve Arrangement	Cylinders	Bore and Stroke	Piston Disp.	Compression Ratio	Tax H. P.	Brake, H.P. and Peak R. P. M.	Pist. Make or Material	No. Main Br.	Oil Purifier	Fuel Cleaner	Carburetor	Air Cleaner
Auburn 8-98	3916	127-136	Lyc	Dole	L	8	3 x4¾	268	*5.26	28.8	98@3400	*Alum	5	Pur	—	Sch	No
Austin	$1130	75	Own	——	L	4	2.2x3	45.6	5.1	7.8	13@3000	Alum	2	—	—	Til	No
Buick 32-50	3170	114	Own	Bish-Bab	O	8	2⅞x4¼	220.7	4.75	26.45	77@3200	CI	5	AC	AC	Mar	AC
Buick 32-60	3795	118	Own	Bish-Bab	O	8	3⅛x4⅝	272.6	4.63	30.02	90@3000	CI	5	AC	AC	Mar	AC
Buick 32-80	4255	126	Own	Bish-Bab	O	8	3 5/16x5	344.8	4.5	35.12	104@2800	CI	5	AC	AC	Mar	AC
Buick 32-90	4340	134	Own	Bish-Bab	O	8	3 5/16x5	344.8	4.5	35.12	104@2800	CI	5	AC	AC	Mar	AC
Cadillac V-8	4645	134	Own	Yes	LV	8	3⅜x4 1/16	353	5.35	36.45	95@3000	CI	3	AC	Gas	Own	No
Cadillac V-12	5480	140-143	Own	Own	O	12	3⅛x4	368	5.5	46.9	135@3400	CI	4	AC	Gas	Own	No
Cadillac V-16	6100	148	Own	Yes	O	16	3 x4	452.0	5.50	57.5	165@3400	CI	5	AC	Gas	Own	No
Chevrolet	2685	109	Own	No	O	6	3 1/16x3¾	194.0	5.00	26.3	50@2600	CI	3	—	AC	Car	AC
Chrysler 6	2850	*175⅞	Own	Yes	L	6	3¼x4⅜	217.8	5.35	25.35	80@3400	*Alum	4	—	AC	Sch	Yes
Chrysler 8 De L.	——	187 1/16	Own	Yes	L	8	3¼x4¼	282.1	5.20	33.80	100@3400	*Alum	5	Yes	Yes	Str	Yes
Chrysler Imp. 8	4725	*211	Own	Yes	L	8	3½x5	384.8	5.00	39.2	125@3200	*Alum	9	Yes	AC	Str	Yes
Cord (Fr. Wh. D.)	4620	137½	Lyc	——	L	8	3¼x4½	298.6	5.25	33.8	115@3300	*Alum	5	Pur	AC	Sch	No
De Soto Six	2695	*169 3/16	Own	Yes	H	6	3¼x4⅛	205.3	5.35	25.35	72@3400	*Alum	4	—	AC	Car	Yes
De Soto Eight	3025	*176⅞	Own	Yes	L	8	2⅞x4¼	220.7	5.40	26.45	77@3400	*Alum	5	—	AC	Str	Yes
De Vaux 6-75	2810	113	Hall	Dole	L	6	3⅜x4	214.7	5.41	27.34	70@3400	Alum	4	AC	Ste	Til	AC
Dodge Six	2820	*176 13/32	Own	Yes	L	6	3¼x4¼	211.5	5.31	25.35	74@3400	*Alum	4	No	AC	Car	AC
Dodge Eight	3174	*180 21/32	Own	Yes	L	8	3 x4¼	240.3	5.40	28.80	84@3400	*Alum	5	Pur	AC	Str	AC
Durant 612	2820	112	Con	Bish-Bab	L	6	3¼x4	199	5.32	25.4	71@3300	*Alum	4	AC	AC	Str	AC
Durant 614	3010	112	Con	Bish-Bab	L	6	3¼x4	199	5.32	25.4	71@3300	*Alum	4	AC	AC	Str	AC
Durant 619	2710	109	Con	Bish-Bab	L	6	3¼x4	199	5.32	25.4	71@3300	*Alum	4	AC	AC	Til	AC
Essex Super Six	2750	**113	Own	——	†L	6	2⅞x4½	175.3	5.80	19.8	60@3300	Alum	3	—	Ste	Mar	AC
Ford A	2375	103½	Own	——	L	4	3⅞x4¼	200.5	4.22	24.03	40@2200	Alum	3	—	—	Zen	—
Fr'klin S 15 Trans.	3930	125	Own	Bish-Bab	*O	6	3½x4¾	274	5.30	29.4	100@3100	*Alum	7	AC	AC	Str	AC
Fr'klin S 15 Trans.	4130	132	Own	Bish-Bab	*O	6	3½x4¾	274	5.30	29.4	100@3100	*Alum	7	AC	AC	Str	AC
Fr'klin S 15 De L	4220	132	Own	Bish-Bab	*O	6	3½x4¾	274	5.30	29.4	100@3100	*Alum	7	AC	AC	Str	AC
Graham Bros. 6	3100	113	Own	Yes	L	6	3⅛x4½	207	5.45	23.4	70@3200	*Alum	7	—	AC	Sch	Yes
Graham Std. 6	3265	115	Own	Yes	L	6	3¼x4½	224	5.45	25.35	76@3400	*Alum	7	—	AC	DL	Yes
Graham Spl. 6	3330	115	Own	Yes	L	6	3¼x4½	224	5.45	25.35	76@3400	*Alum	7	—	AC	DL	Yes
Graham Spl. 8	3560	120	Own	Yes	L	8	3⅛x4	245	5.45	31.25	85@3400	*Alum	5	AC	AC	DL	Yes
Graham Cust. 8	4,00	134	Own	Yes	L	8	3¼x4½	298	5.20	33.80	100@3400	*Alum	5	AC	AC	DL	Yes
Hudson Greater 8	3115	119-126	Own	——	L	8	2⅞x4½	233.7	5.80	26.4	87@3600	Alum	5	—	Ste	Mar	AC
Hupmobile Cen. 6	2985	114	Own	——	L	6	3¼x4¼	211.6	5.10	25.35	70@3200	Alum	4	AC	Ste	Str	Yes
Hupmobile Cen. 8	3275	118	Own	Pines	L	8	2⅞x4⅛	240.2	5.20	26.45	90@3200	Alum	5	Pur	Ste	Str	Yes
Hupmobile C	3730	121	Own	Pines	L	8	3 x4¾	268.6	5.20	28.8	100@3200	CI	5	Pur	Ste	Str	Yes
Hupmobile H & U	**	125-137	Own	Pines	L	8	3½x4¾	365.6	5.20	39.2	133@3400	Alum	5	Pur	Ste	Str	AM
La Salle V-8	4635	134	Own	Yes	LV	8	3⅜x4 1/16	353	5.35	36.45	95@3000	CI	3	AC	Gas	Own	—
Lincoln	5300	145	Own	Ful	L	8	3½x5	384	5.23	39.2	120@2900	Alum	5	Pur	Ste	Str	Un
Marmon 70	2823	112¾	Own	Pines	L	8	2 13/16x4¼	211.2	5.50	25.4	84@3400	Alum	5	AC	AC	Str	AC
Marmon 88	4 75	130-136	Own	Pines	L	8	3¼x4¾	315.2	5.50	33.8	125@3400	Alum	5	AC	AC	Str	AC
Marmon 16	5360	145	Own	Pines	O	16	3⅛x4	490.8	6.00	62.5	200@3400	Alum	5	Flo	AC	Str	AC
Nash 960	2800	114¼	Own	Bish-Bab	L	6	3⅛x4⅝	201.3	5.00	23.4	65@3200	*Alum	7	AC	AC	Car	AC
Nash 970	3000	116¼	Own	Bish-Bab	L	8	2⅞x4⅜	227.2	5.00	26.4	78@3300	*Alum	9	AC	AC	Str	AC
Nash 980	3360	121	Own	Bish-Bab	O	8	3 x4¼	240	5.25	28.8	94@3400	*Alum	9	AC	AC	Str	AC
Nash 990	4000	124-133	Own	Bish-Bab	O	8	3¼x4½	298.6	5.25	33.8	115@3600	*Alum	9	AC	AC	Str	AC
Oakland V-8	3260	117	Own	Yes	H	8	3 1/16x3⅜	251.0	5.00	37.8	85@3400	S St	3	—	AC	Mar	AC
Oldsmobile	2935	113⅛	Own	——	L	6	3 1/16x4⅛	197.5	5.06	24.4	65@3350	CI	4	AC	AC	Str	AC
Packard 901-902	4570	129½-136½	Own	Yes	L	8	3 1/16x5	320.0	6.00	32.5	110@3200	*Alum	9	Yes	Yes	Own	AC
Packard 903-904	5045	142⅛-147⅛	Own	Yes	L	8	3½x5	384.8	6.00	39.2	135@3200	*Alum	9	Yes	Yes	Own	AC
Peerless St. 8	3642	118	Con	Bish-Bab	L	8	2⅞x4¾	246.0	5.00	26.45	90@3200	*Alum	5	Pur	AC	Sch	AC
Peerless Master 8	4521	125	Con	Bish-Bab	L	8	3⅜x4½	322	5.00	36.45	115@3200	*Alum	5	Pur	AC	Sch	AC
Peerless De L.	4521	125	Con	Bish-Bab	L	8	3⅜x4½	322	5.00	36.45	115@3200	*Alum	5	Pur	AC	Sch	AC
Peerless Custom 8	4766	138	Con	Bish-Bab	L	8	3⅜x4½	322	5.00	36.45	120@3200	*Alum	5	Pur	AC	Sch	AC
Pierce-Arrow 54	——	137-142	Own	Pines	L	8	3½x4¾	366	5.00	39.2	125@3800	Alum	9	Pur	Ste	Str	AC
Pierce-Arrow 52	——	142-147	Own	Pines	L	12	3⅜x4	429	5.00	54.6	150@3200	Alum	9	Pur	Ste	Str	AC
Pierce-Arrow 53	——	137-142	Own	Pines	L	12	3¼x4	398	5.00	50.7	140@3200	Alum	9	Pur	Ste	Str	AC
Plymouth	2710	109	Own	——	L	4	3⅝x4¾	196.1	4.90	21.03	56@2800	*Alum	3	—	AC	Car	Yes
Pontiac	2845	112	Own	Yes	L	6	3 5/16x3⅞	200.0	4.90	26.3	60@3000	S St	3	—	AC	Mar	AC
Reo Royale 8-35	4650	135	Own	Pines	L	8	3⅜x5	358	5.30	36.48	125@3300	Alum	9	Han	AC	Sch	Own
Reo Royale 8-31	4375	131	Own	Pines	L	8	3⅜x5	358	5.30	36.48	125@3300	Alum	9	Han	AC	Sch	Own
Reo 8-21	3610	121	Own	Yes	L	8	3 x4¾	268.6	5.37	28.8	90@3300	*Alum	5	Han	—	Sch	Un
Reo 6-21	3525	121	Own	Yes	L	6	3⅜x5	268.3	5.30	27.3	85@3200	Alum	7	Han	—	Sch	Un
Reo Fly. Cloud 6-25	3950	125	Own	Yes	L	6	3⅜x5	268.3	5.30	27.34	85@3200	Alum	7	Han	V S	Sch	Un
Reo 8-25	4050	125	Own	Yes	L	8	3 x4¾	268.6	5.37	28.8	90@3300	*Alum	5	Han	V S	Sch	Un
Studebaker Six	2920	114	Own	Dole	L	6	3¼x4⅛	205.3	5.20	25.4	70@3200	CI	4	Flo	Ste	Str	No
Studebaker Dict. 8	3095	114	Own	Dole	L	8	3 1/16x3¾	221.0	5.00	30.0	81@3200	Alum	9	Pur	Ste	Str	AM
Studebaker Com. 8	3520	124	Own	Dole	L	8	3 1/16x4¼	250.4	5.20	30.0	101@3200	Alum	9	Pur	Ste	Str	Un
Studebak'r Pres 80	4250	130	Own	Dole	L	8	3½x4⅝	337	5.10	39.2	122@3200	*Alum	9	Han	Ste	Str	AM
Studebak'r Pres. 90	*4360	136	Own	Dole	L	8	3½x4⅝	337	5.10	39.2	122@3200	*Alum	9	Han	—	Str	AM
Stutz LA	4320	127½	Own	——	O	6	3⅜x4½	241.5	5.10	27.3	85@3150	*Alum	7	Wal	AC	Zen	Un
Stutz MA	4918	134½	Own	——	O	8	3⅜x4½	322	5.50	36.4	113@3300	*Alum	9	Wal	AC	Zen	AM
Stutz MB	4863	145	Own	——	O	8	3⅜x4½	322	5.50	36.4	113@3300	*Alum	9	Wal	AC	Zen	AM
Stutz DV 32	5240	134½	Own	Bish-Bab	O	8	3⅜x4½	322	5.10	36.4	161@3900	Alum	9	Wal	Ste	Sch	AM
Willys 6-97-98 D	*	110-113	Own	Var	L	6	3¼x3⅞	193	5.26	25.3	65@3400	CI	4	Flo	AC	Til	Til
Willys 8-80 D	3131	121	Own	Var	L	8	3⅛x4	245.4	5.26	31.25	80@3200	CI	5	Flo	AC	Til	Til
Willys-Knt. 66-D	3400	121	Own	Var	K	6	3⅜x4¾	255	5.26	27.3	87@3200	*Alum	7	Flo	Til	Til	Til
Willys-Knight 95	3122	113	Own	Pines	K	6	2 13/16x4⅜	177.9	5.55	20.7	60@3400	*Alum	7	*	AC	Til	AC

New Dealer Appointments By States and Makes

MONTANA

Hupmobile—Casey & Halley, Kallispell.

NEW HAMPSHIRE

Hupmobile—M. W. Devereaux, Colebrook.

Willys-Overland—Collin's Garage, Franklin.

NEW JERSEY

Hupmobile — Albert G. Waters, Perth Amboy.

NEW YORK

Hupmobile — William Singleton, Auburn; Paiges Garage, Medina; C. W. Blodgett, Perry; Anderson Motors, Inc., Westbury, Long Island; Ruggiero & Killiams, Inc., White Plains.

Nash—M. H. O'Hara, Oswego.

Willys-Overland — Everett S. Bowen, Whitney Point; LaMere Motor Sales, Hudson Falls.

NORTH CAROLINA

Studebaker — Hampton Motor Company, Leakesville.

OHIO

Willys-Overland—Langdon Motor Company, Gallipolis.

OKLAHOMA

Studebaker—Bryan & Sons, Cushing.

OREGON

Willys-Overland—Packard Willys Motor Company, Eugene; August E. Young, Ontario.

PENNSYLVANIA

Hupmobile—Bates Motor Company, Kingston; Stine Brothers, McVeytown

Nash—Patterson Boyer Motor Company, Easton; White Rose Nash Company, York.

RHODE ISLAND

Hupmobile — Moreau Motors, Natick; Thurber Motor Car Company, Pawtucket.

SOUTH CAROLINA

Willys-Overland — Cox Brothers, Florence.

TEXAS

Nash—Appel Garage, Brenham.

VERMONT

Willys-Overland — Nash Borland Corporation, Newport.

WASHINGTON

Hupmobile—Penn's Garage, Port Angeles; Manley Motor Company, Tacoma; Goers Brothers, Shawano.

Nash—Ivan Raish Motor Company, Centralia; Bair Motors, Spokane.

WEST VIRGINIA

Willys-Overland — Conner Motor Sales, Weirton.

WISCONSIN

Hupmobile—Uptown Motor Service, Oshkosh.

Studebaker—Jacobson Auto Company, Madison.

MONTANA

Willys-Overland—Herman Lindstadt, Philipsburg.

NEW MEXICO

Willys-Overland—Raton Garage, Raton.

NEW YORK

Nash—Hamburg-Nash, Hamburg.

Willys-Overland—Paige Sales & Service Corporation, Rochester.

Studebaker—Uhl Brothers, Fishkill; Deposit Motor Sales, Deposit.

NORTH CAROLINA

Willys-Overland—J. H. Jenkins, Spring Hope.

OHIO

Nash—C. C. Runyan, Milford.

Willys-Overland—Hi-Speed Garage Company, Desbler.

OKLAHOMA

Willys-Overland — Payne Motor Company, Ponca City.

OREGON

Willys-Overland—James H. Maden Company, Inc., Salem.

PENNSYLVANIA

Auburn — Cossman's Garage, Mauch Chunk; McKay Motor Company, Upper Darby; Ream & Eisenberg, Reading; Ritter Motor Company, Pittston.

Studebaker—Hetzler Motors, Inc., Dormont; Siebert Motor Company, New Kensington; W. D. Gardner, Washington; Tustin & McAndrews, Waynesburg.

TEXAS

Auburn — Rountree Motor Company (distributor), Houston.

Nash—A. C. Keith Motor Company, Amarillo.

WASHINGTON

Auburn—Wenatchee Auburn Company (Martin J. Sather), Wenatchee; Frank Brotherton, Walla Walla.

WISCONSIN

Nash—William Schill Motor Company, Wisconsin Rapids.

OF PRESENT AMERICAN PASSENGER CAR MODELS

Make and Model	Front End Drive	Ignition System	Gen. and Starter	Clutch	Transmission Make	Transmission Speeds	Transmission Type	Universals	Rear Axle	Ratio	Brakes	Steering Gear	Springs Rear	Spring Shackles	Chassis Lubric.	Tires
Auburn 8-98	Chain	Del-R	*Del-R	Long	D	3	LGS-F-SM	U	Col ½	*4.45	S D	Ross	S 56¾	Own	Bijur	17x5.50
Austin	Gear	Aut-L	*Aut-L	Rock	WG	3	——	S	Sal ½	5.25	M	Say-B	Cant	Own	Al-Z	18x3 75
Buick 32-50	Tex	Del-R	Del-R	Own	M	3	SM-F	O	Own ½	4.60	Bendix	Sag	S 54½	Tryon	Al-Z	18x.50
Buick 32-60	Tex	Del-R	Del-R	Own	O	3	SM-F	O	Own ¾	4.54	M	Sag	S 55¼	Own	Alem	18x6.00
Buick 32-80	Tex	Del-R	Del-R	Own	O	3	SM-F	O	Own ¾	4.27	M	Sag	S 58⅞	Own	Al-Z	18x7.00
Buick 32-90	Tex	Del-R	Del-R	Own	O	3	SM-F	O	Own ¾	4.27	M	Sag	S 58⅞	Own	Al-Z	18x7.00
Cadillac V-8	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.75	Own-M	Sag	S 58	Own	Al-Z	19x6.50
Cadillac V-12	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	——	Own-M	Sag	S 58	Own	Alem	19x7.00
Cadillac V-16	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.39	Own	Sag	S 60	Own	Alem	19x7.00
Chevrolet	Var	Del-R	*Del-R	Own	O	3	——	O	Own	4.10	M	Sag	S 54	——	Alem	19x4.75
Chrysler 6	Morse	Del-R	Del-R	Borg	O	3	BW-F	U	Own ½	4.60	H	War	S 53⅝	Tryon	Al-Z	19x5.25
Chrysler 8 De L.	Morse	Del-R	Del-R	Borg	O	4	BW-F	—	Own ½	4.30	H	——	S 54⅝	——	Al-Z	17x6.50
Chrysler Imperial 8	Morse	Del-R	Del-R	Borg	O	4	BW-F	—	Own ½	3.82	H	Ross	S 57½	——	Al-Z	18x7.00
Cord (Fr. Wh. Dr.)	Link	Del-R	*Del-R	Long	D	3	——	*	Col F	4.80	H	Gem	S 62	Own	Bijur	18x7.00
De Soto Six	Var	Del-R	Del-R	Borg	O	3	BW-F	—	Own ½	4.33	H	Own	S 53⅜	——	Al-Z	19x5.00
De Soto Eight	Var	Del-R	Del-R	Borg	O	3	BW-F	—	Own ½	4.60	H	Own	S 54⅝	Rub B	Al-Z	19x5.25
De Vaux 6-75	Morse	Aut-L	*Aut-L	Borg	N	3	NP-F	S	NP ½	4.40	S D	NP	S 54¼	Tryon	Al-Z	19x5.00
Dodge Six	Morse	Del-R	Del-R	Borg	O	3	BW-F	S	Own ½	4.60	H	War	S 55¼	Tryon	Al-Z	19x5.00
Dodge Eight	Morse	Del-R	Del-R	Borg	O	3	BW-F	S	Own ½	4.60	H	War	S 54⅝	Rub B	Al-Z	18x5.50
Durant 612	Morse	Aut-L	*Aut-L	Borg	W	3	——	S	Own ½	4.40	S D	Own	S 55	Tryon	Al-Z	19x5.00
Durant 614	Morse	Aut-L	*Aut-L	Borg	W	3	——	S	Own ½	4.40	S D	Own	S 55	Tryon	Al-Z	19x5.00
Durant 619	Morse	Aut-L	*Aut-L	Borg	W	3	——	S	Own ½	3.90	S D	Own	S 54	Tryon	Al-Z	19x4.75
Essex Super Six	Morse	Aut-L	*Aut-L	Own	O	3	BW-F	S	Own ½	5.40	Bendix	Gem	S 54⅛	Own	Alem	19x5.00
Ford A	Var	Own	*Own	Own	O	3	——	S	Own ¾	3.78	M	Gem	S Tr39	Own	Al-Z	19x4.75
Franklin S 15 Trans.	Chain	Del-R	*Del-R	Br-L	*	—	——	M	Own ½	‡4.54	H	Gem	El 42	None	Al-Z	19x6.50
Franklin S 15 Trans.	Chain	Del-R	*Del-R	Br-L	*	—	——	M	Own ½	‡4.54	H	Gem	El 42	None	Al-Z	19x6.50
Franklin S 15 De L	Chain	Del-R	*Del-R	Br-L	WG	3	——	S	Own ½	‡4.73	H	Gem	El 42	None	Al-Z	19x6.50
Graham Bros. 6	Link	Del-R	*Del-R	Long	—	3	BW-F	—	——	4.45	H	Ross	S 54	ERS	Al-Z	19x5.00
Graham Std. 6	Link	Del-R	*Del-R	Long	—	3	BW-F	—	——	4.30	H	Ross	S 54	ERS	Al-Z	5.50x18
Graham Spl. 6	Link	Del-R	*Del-R	Long	—	4	BW-F	—	——	4.09	H	Ross	S 54	ERS	Al-Z	6.00x17
Graham Spl. 8	Link	Del-R	*Del-R	Long	—	4	BW-F	—	——	4.09	H	Ross	S 54	ERS	Al-Z	6.00x17
Graham Cust. 8	Link	Del-R	*Del-R	Long	—	4	BW-F	—	——	4.09	H	Ross	S 56	ERS	Al-Z	6.50x18
Hudson Greater 8	Morse	Aut-L	*Aut-L	Own	O	3	BW-F	S	Own ½	4.64	Bendix	Gem	S 54⅛	Own	Alem	18x5.50
Hupmobile Cen 6	Chain	Aut-L	*Aut-L	Borg	WG	3	BW-F	M	Sal ½	4.70	S D	Ross	S 53	Tryon	Al-Z	19x5.50
Hupmobile Cen 8	Morse	Aut-L	*Aut-L	Borg	WG	3	BW-F	U	Sal	4.55	S D	Ross	S 52¾	Rub B	Al-Z	19x5.50
Hupmobile C	Morse	Aut-L	*Aut-L	Long	WG	3	BW-F	U	Own ½	4.55	S D	Ross	S 54	Own	Alem	19x6.00
Hupmobile H and U	Morse	Aut-L	*Aut-L	Long	WG	3	BW-F	U	Own ½	4.07	S D	Ross	S 57	Own	Alem	19x6.50
La Salle V-8	Morse	Del-R	Del-R	Own	O	3	SM	S	Own ¾	4.75	Own-M	Sag	S 58	Own	Alem	19x6.50
Lincoln	——	Aut-L	*Aut-L	Long	O	3	BW-F	S	Tim F	4.58	Bendix	Own	S 62	Own	Alem	7.00x19
Marmon 70	Diam	Del-R	*Del-R	Rock	WG	3	BW-F	S	Sal ½	4.70	Bendix	Ross	S 54⅛	Tryon	Al-Z	29x5.50
Marmon 88	Diam	Del-R	*Del-R	Rus	D	3	BW-F	S	Sal ½	4.45	Bendix	Ross	S 60	Rub B	Al-Z	19x6.50
Marmon 16	Diam	Del-R	Del-R	Rus	M	3	BW-F	S	Sal ½	3.78	Bendix	Ross	S 60	Rub B	Al-Z	18x7.00
Nash 960	Cel	Aut-L	*Aut-L	Borg	O	3	SM-DG-F	—	Own ½	4.75	M	Ross	S 50⅞	——	Alem	19x5.00
Nash 970	Diam	Aut-L	*Aut-L	Borg	O	3	SM-DG-F	—	Own ½	4.73	M	Ross	S 50⅞	——	Alem	19x5.25
Nash 980	Diam	*Aut-L	*Aut-L	Borg	O	3	SM-DG-F	—	Own ½	4.46	M	Gem	S 55	——	Bijur	18x6.00
Nash 990	Diam	*Aut-L	*Aut-L	Borg	O	3	SM-DG-F	—	Own ½	4.50	M	Gem	S 57½	——	Bijur	19x6.50
Oakland V-8	Morse	Del-R	Del-R	Own	M	3	SM	M	Own ½	3.90	M	Sag	S 54½	Inlox	Al-Z	28x5.50
Oldsmobile	Chain	Del-R	Del-R	Borg	M	3	SM	U	Own ½	4.54	Bendix	Sag	S 54½	Tryon	Alem	28x5.25
Packard 901-902	Morse	N E	Dyn	Long	O	4	SM	M	Own ½	4.66	M	Own	S 60½	Own	Bijur	6.50x19
Packard 903-904	Morse	N E	Dyn	Long	O	4	SM	M	Own ½	4.66	M	Own	S 60½	Own	Bijur	7.00x19
Peerless St. 8	Morse	Aut-L	*Aut-L	Rock	WG	3		S	Sal ½	4.70	Bendix	Ross	S 56⅞	Rub B	Alem	29x5.50
Peerless Master 8	Morse	Aut-L	*Aut-L	Rock	WG	3	BW-F	S	Sal ½	4.45	Bendix	Ross	S 60	Rub B	Alem	31x6.00
Peerless De L.	Morse	Aut-L	*Aut-L	Rock	WG	3	BW-F	S	Sal ½	4.45	Bendix	Ross	S 60	Rub B	Alem	31x6.00
Peerless Custom 8	Morse	Aut-L	*Aut-L	Rock	WG	3	BW-F	S	Sal ½	4.45	Bendix	Ross	S 60	Rub B	Alem	31x6.50
Pierce-Arrow 54	Chain	Del-R	Del-R	Long	W	3	SM-F	—	Own	4.42	Bendix	Ross	S 62	Faf	——	31x6.50
Pierce-Arrow 52	Chain	Del-R	Del-R	Long	—	—	——	—	Own	4.42	Bendix	Ross	——	Faf	——	32x7.00
Pierce-Arrow 53	Chain	Del-R	Del-R	Long	—	—	——	—	Own	4.42	Bendix	Ross	——	Faf	——	32x7.00
Plymouth	Var	Del-R	Del-R	Own	O	3	BW-F	O	Own ½	4.33	H	War	S 53⅜	Tryon	Al-Z	19x4.75
Pontiac	Morse	Del-R	Del-R	Own	O	3	——	M	Own ½	4.55	M	Sag	S 54	Inlox	Al-Z	29x5.00
Reo Royale 8-35	Morse	Del-R	Del-R	Long	O	3	SM	U	Own ½	4.07	H	Ross	S 57½	Own	Far	6.50x18
Reo Royale 8-31	Morse	Del-R	Del-R	Long	O	3	SM	U	Own ½	4.07	H	Ross	S 57½	Own	Al-Z	6.50x18
Reo 8-21	Link	Del-R	Del-R	Long	O	3	SM	U	Own ½	4.42	H	Ross	S 55¾	Tryon	Al-Z	17x6.00
Reo 6-21	Morse	Del-R	Del-R	Long	O	3	SM	U	Own ½	4.07	H	Ross	S 55¾	Tryon	Al-Z	17x6.00
Reo Fly. Cloud 6-25	Morse	Del-R	*Del-R	Long	O	3	SM	U	Own ½	4.42	H	Ross	S 55¾	Own	Al-Z	17x6.50
Reo 8-25	Link	Del-R	*Del-R	Long	O	3	SM	U	Own ½	4.42	H	Ross	S 55¾	Own	Al-Z	17x6.50
Studebaker Six	Chain	Del-R	*Del-R	Long	O	3	BW-F	S	Own ½	4.73	Bendix	Ross	S 54	Tryon	Alem	19x5.25
Studebaker Dict. 8	Var G	Del-R	*Del-R	Long	O	3	BW-F	S	Own ½	4.73	Bendix	Ross	S 54	Tryon	Alem	19x5.25
Studebaker Com. 8	Var G	Del-R	*Del-R	Long	O	3	BW-F	S	Own ½	4.73	Bendix	Ross	S 56	Faf	Al-Z	19x6.00
Studebaker Pres. 80	Var G	Del-R	Del-R	Long	O	3	BW-F	S	Own ½	4.31	Bendix	Ross	S 60	Faf	Al-Z	19x6.50
Studebaker Pres. 90	Var G	Del-R	Del-R	Long	O	3	BW-F	S	Own ½	4.31	Bendix	Ross	S 60	Faf	Al-Z	19x6.50
Stutz LA	——	Del-R	Del-R	Borg	D	4	——	U	Sal ½	4.75	H	Gem	S 60	Own	Bijur	19x6.00
Stutz MA	——	Del-R	Del-R	Long	D	4	——	M	Tim ½	4.75	H	Gem	S 62¼	Own	Bijur	20x6.50
Stutz MB	——	Del-R	Del-R	Long	D	4	——	M	Tim ½	4.75	H	Gem	S 62¼	Own	Bijur	20x7.00
Stutz DV 32	——	Del-R	Del-R	Long	D	4	——	M	Tim ½	4.75	H	Gem	S 62¼	Own	Bijur	18x7.00
Willys 6-97-98 D	Chain	Aut-L	*Aut-L	Borg	O	3	BW-F	S	Own ½	4.60	Bendix	Own	*S 49¾	Tryon	Alem	19x5.00
Willys 8-80 D	Chain	Aut-L	*Aut-L	Borg	O	3	BW-F	S	Own ½	4.40	Bendix	Ross	S 56	Tryon	Alem	18x5.50
Willys-Knight 66 D	Chain	Aut-L	*Aut-L	Rock	O	3	BW-F	S	Own ½	4.18	Bendix	Ross	S 56	Tryon	Alem	18x6.00
Willys-Knight 95	Chain	Aut-L	Aut-L	Borg	O	3	BW-F	S	Own ½	4.89	Bendix	Gem	S 51	Tryon	Alem	19x5.00

KEY TO ABBREVIATIONS

Weight—‡Austin standard 2 passenger coupe. **Hupmobile model H weighs 4,095 pounds, and model U 4,360 pounds. *Studebaker, 7 pass. sedan. *Willys 6-97D weighs 2,670 and the 98 D weighs 2,706 pounds.

Wheel Base—*Over all length of chassis instead of wheel base, which manufacturers refuse to give. **Essex, seven-passenger sedan available on 119-inch wheel base.

Engine Make—Con. Continental; Lyc. Lycoming. Hall, De Vaux-Hall Motors Corp

Thermostat—Bish-Bab. Bishop & Babcock Dole, Dole Valve Co., Chicago, Ill.; Ful Fulton Co.; Pines, Pines Winterfront; Var, various makes.

Valve Arrangement—L, L head; H, horizontal; O, overhead; K, sleeve valve LV, V-type L head.

*Air cooled. †Thermo syphon water circulation.

Compression Ratio—*Optional on the Auburn

Piston Material—*Alum, aluminum with invar struts; Alum, aluminum alloy; Cl, cast iron; S St, semi-steel.

Oil Purifier—Pur Purolator; Wal Wall; Han, Handy; AC, AC Spark Plug Company; Ste, Stewart-Warner; Ski, Skinner; Flo, Floato.

*Using both Floato & Skinner.

Fuel Cleaner—AC, AC Spark Plug Co.; Gas Gascolator; Ste, Stewart-Warner; Til Tillotson; V-S, Van Sicklen.

Carburetor—Sch, Wheeler Schebler; Zen Zenith; Mar, Marvel; Car, Carter; Str, Stromberg; DL Detroit Lubricator; Til Tillotson.

Air Cleaner—AC, AC Spark Plug Company; AM, Air Maze; Han, Handy; Un United; Til, Tillotson.

Front End Drive—Link, Link Belt; Tex, Texolite; Cel, Celeron; Diam, Diamond Chain; Morse, Morse Chain Company; Var, various makes of chains; Var-G, various makes of gears.

Ignition, Generator and Starter—Aut-L, Auto-Lite; Del-R, Delco-Remy; Dyn, Owen-Dyneto Corp.; N E, North East. *Nash,—Indicates twin ignition. *Bendix starter used.

Clutch—Borg, Borg & Beck; Br-L, Brown-Lipe; Rock, Rockford Machine; Long, Long Clutch Company; Rus, Russell Mfg. Co.

Transmission Make—D, Detroit Gear; WG, Warner Gear Company; M, Muncie Gear Company; O, Own; N, New Process Gear Corp.; W, Warner Corp. *Franklin Transcontinent models are equipped with both Warner and Detroit 3 or 4 speed gear sets, according to body type.

Transmission Type—DG, Detroit Gear & Machine Co.; LGS, The LGS Corp.; F, Free Wheeling; SM, Synchro Mesh; BW, Borg-Warner; NP—New Process Gear Corp.

Universals—U, Detroit Universal Products; S, Spicer Mfg. Corp.; O, Own; M, Mechanics Universal Joint Company.

Rear Axle—Col, Columbia; Sal, Salisbury; Tim Timken; N.P., New Process Gear Corp.; ½-Semi-floating; ¾-¾ floating; F-Full floating.

Ratio—Optional on the Auburn. *On Pierce Arrow 43, 137 in W. B. rear axle ratio is 4.42. On model 41 rear axle ratio is 4.42. On model 42 ratio is 4.23.

‡The axle ratio varies with body types on Franklin models.

Brakes—H, hydraulic; M, mechanical; SD, steeldraulic; Bendix, Bendix Brake Corp.

Steering Gear—Gem, Gemmer; Ross, Ross Gear and Tool Company; Sag, Saginaw; Say-B Saylor-Beall Manufacturing Company; War, Warner; N.P., New Process Gear Corp.

Rear Springs—S, semi-elliptic; E, full elliptic; Cant, semi-cantilever; S-Tr, semi-transverse. *Rear spring length on Willys, 6-98D is 51 in.

Spring Shackles—Tryon, Willys-Morrow Company; Rub B, Rubber Shock Insulator Company; Faf, Fafnir Bearing Company; ERS, Eaton Rubber Bushings; Inlox—Inland Mfg. Co.

Chassis Lubricator—Alem, Alemite; Al-Z, Alemite Zerk; Bijur, Bijur Lubricating Corp.; Far, Farval.

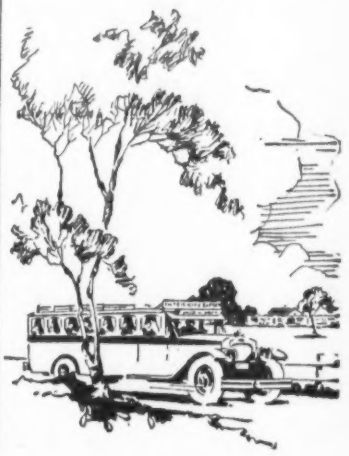
R. H. GRANT PLACES G. M. 1932 SALES AT 900,000 CARS

(Continued from Page 1)

fact that more cars were junked than sold, combined with the tendency of the industry to reach peak sales every third year, argues well for next year's business, he declared.

Despite some predictions that the motor car registrations of the nation would never again be at the 25,000,000 mark, Mr. Grant predicted that they would total 35,000,000 units. He analyzed the outlook as three good years ahead to be followed by three bumper years before the next slump in automobile sales. Immediate encouraging signs, he declared, are the rising prices of wheat, other grains, silver and cotton, adding that they may or may not be false starts, but certainly are indications of real recovery and of better conditions near at hand, with the automobile industry in the vanguard.

CONTINENTAL MOTORS — Powering the Nation — AMERICA'S STANDARD



Power Specifications

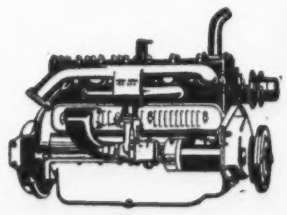
Continental builds gasoline engines to become integral parts of the machinery in which they are to be used.

Whether automotive, industrial, agricultural or aircraft—Continental engines are designed to deliver power and possess stamina specifically adapted to their individual installations.

CONTINENTAL MOTORS CORPORATION

Offices: Detroit, Michigan, U. S. A.
Factories: Detroit and Muskegon

The Largest Exclusive Motor Manufacturer in the World



Continental Engines

Production--Engineering--Factory

Ditzler Introducing New Line of Ditzco Enamels

Ditzler distributors are now introducing to their trade a new and improved quick-drying finish known as Ditzco Enamel.

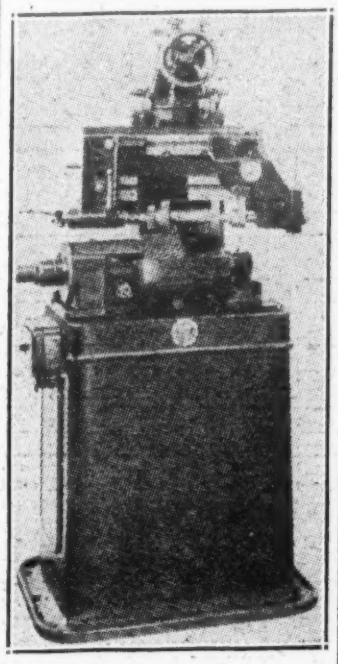
This new finish is the result of long experimentation and testing in Ditzler laboratories.

Durability is exceptionally high, the initial high gloss and color being retained for an extremely long period. Toughness is also developed to a high degree, the makers claim, flexibility being retained much longer than usual, and the resulting film being smooth, full-bodied and of exceptional hardness.

These new enamels are unaffected by water, and are highly resistant to oil, acid, gas fumes, brines and other destructive agents. They are also highly resistant to abrasion, weathering and corrosion and do not easily scratch or mar.

They may be applied either by means of spray gun or brush, flow out freely to a smooth, level surface, dry rapidly, adhere well to either w·d or metal, and do not dissolve or lift old finish over which they may be used. They spread unusually well, being high in solid content, and are, therefore, economical to use. Freedom from the necessity for sanding or rubbing makes the cost of labor low.

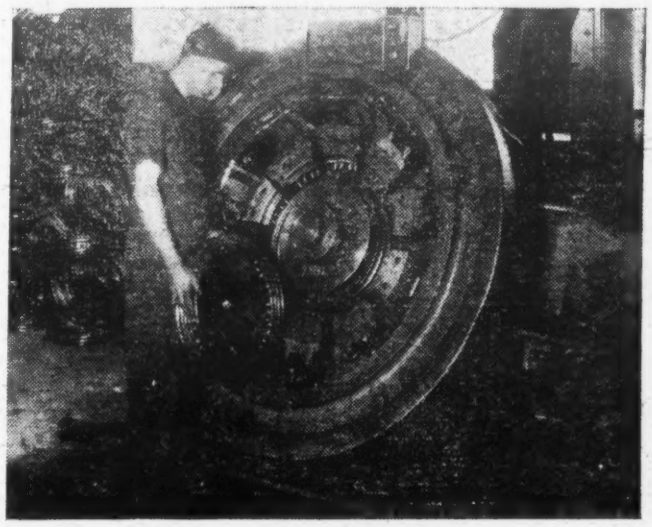
NATIONAL BROACH NEW GEAR TOOTH LAPPING MACHINE



The National Broach and Machine Company, Detroit, Mich., has just put out a new model G. L. F., Red Ring gear tooth lapping machine. This piece of equipment has a capacity for lapping seven-inch diameters or less of transmission gears and is used chiefly for lapping in spiral gears. Production time is from three to five minutes per gear. A built-in motor drive is furnished, with reversing switches and automatic feed.

In operation the manufacturer states that this machine involves a new method of finishing gears. The axles of the lap and gear are not parallel. By reciprocating the gear the lapping action is spread across the face of the gears. Adjustable oil brake in the tailstock provides uniform load on lapped surface. The reversing switch permits lapping both sides of the teeth.

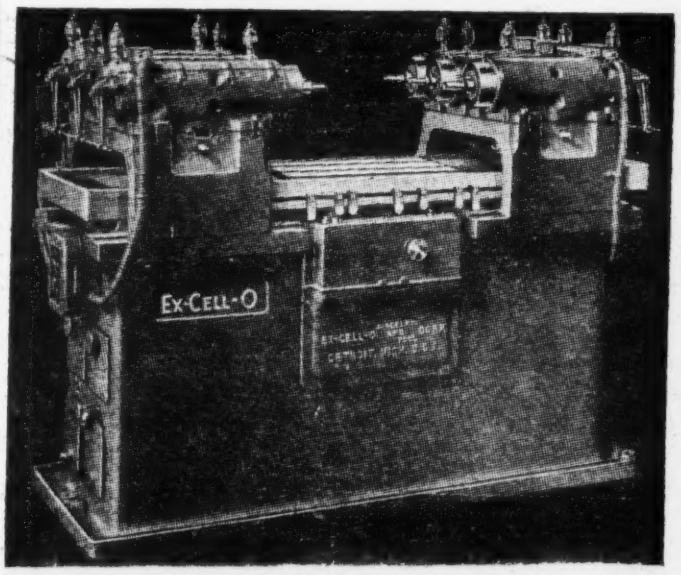
New Budd Machine to Insure Wheel Accuracy



A newly developed machine which simultaneously locates the position of all spokes in the Budd wire wheel is now in use by the Budd Wheel Company, and is contributing materially toward the ability to secure unusual accuracy on a big production scale.

The new machine is for a forty-spoke wheel. It carries ten segments mounted on a massive ring. The segments, operated by toggles, carry four buttons each, which are pressed into the rim by the toggles when the machine is put into operation. This simultaneously locates the heads of all forty spokes. The indentations made by the buttons are afterwards pierced with a punch which is centered by these indentations in the rim. This new method is responsible for a gain in speed and accuracy in Budd Wheel manufacturing.

New Large Boring Machine by Ex-Cell-O



THE general construction of the Ex-Cell-O boring machine is designed to insure maximum rigidity and absence of vibration, which tends to lengthen the life of the cutting tool. In order to accomplish this, all belts and gears, with the exception of the pumps, have been eliminated and the castings heavily cross ribbed. The base has a three-pad support which eliminates weave or floor vibration. At each end of the machine a bridge of the inverted U type is provided for mounting the boring parts.

One to three boring units are mounted on each bridge as required. "T" slots are provided across the top of the bridge, and an adjusting screw is located near the top and in the center for adjusting units. The surface of each bridge is accurately scraped, enabling perfect alignment and ease in adjustment of each unit. By this method of mounting the boring units, bridges and base are as a solid unit.

Each unit has a self-contained motor, mounted on boring spindle shaft. The motor and spindle are individually balanced and provided with highly developed Ex-Cell-O ball bearings that have a minimum radial or end play. By the units remaining stationary, a constant extension of the tool over the bearing is maintained throughout the cut.

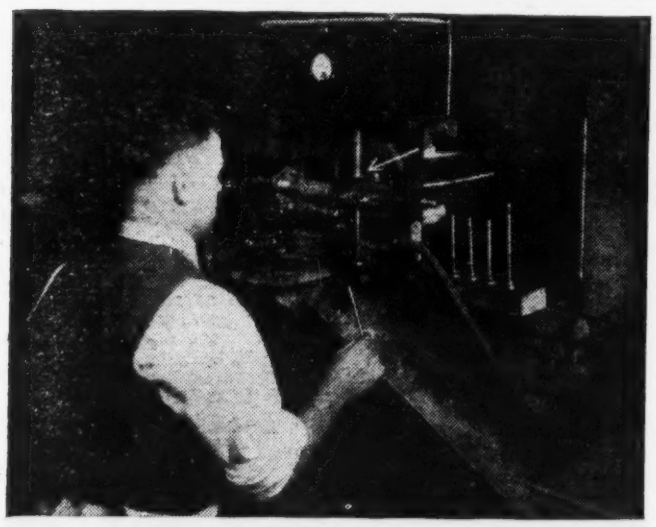
A hydraulic cylinder opens an electric switch in the motor circuit after finishing the cut. Upon opening the switch a brake cylinder applies individual brakes on each unit. By stopping the boring tool before it is withdrawn from the work no marks are left in the finished hole.

The design of each holding fixture is determined by the part to be bored, amount of material to be removed, finish required and the production demand. In the illustrations on this page are shown several different types of fixtures and their outstanding features discussed. Each of these fixtures is designed to be mounted on a standard double-end machine.

The full hydraulic fixture shown in Figure 1 is for roughing and finishing aluminum pistons complete in one operation. Three pistons are loaded in the fixture, and by pressing a button at the front of the fixture a hydraulic valve is placed in operation. This valve automatically closes the top of the fixture.

(Continued on Page 10)

Electric Eye Speeds Valve Tip Hardening



Tip hardening of valves to resist wear was a sensitive and tricky operation until an electric eye, indicated by the arrow, was drafted by Thompson Products, Inc., of Cleveland, to control the job.

This particular electric eye regulates steel hardness with great accuracy by recognizing various color changes of the steel during heat treatment. A valve is placed in the machine and electric current passed through the tip. When the tip is at the proper heat, according to color, the electric eye registers, shuts off the current and releases the valve into an oil quench.

WATSON STABILATOR OPENS NEW BRANCH

Newark, N. J., Nov. 16.—The Watson Stabilator Company of New Jersey, 264 Central Ave., has opened an additional station at 16 Brick Church Plaza, East Orange. This company has been servicing all makes of carburetors and shock absorbers and has added three new departments—starting, lighting and ignition. The East Orange location will make it possible for an automobile owner to have his entire car serviced under one roof. Twenty-four-hour service will be featured.

Copeland Room Cooler Placed on Market

The Copeland room cooler consists of a blower type room cooler and standard condensing unit. The cooler dimensions are 20 inches wide, 20 inches high by 22¼ inches deep. Depth from wall when mounted is 26¼ inches.

It is a Copeland design and consists of a large area cross-fin coil, mounted in a metal housing, with adjustable air deflectors at the front and a special type exhaust fan at the rear; a special expansion valve, removable drip pan at the bottom, with connections for carrying away condensation, and with four lugs at the rear for mounting. All parts, with t· exception of the fan, are made of aluminum, brass or copper.

At the front of the cooler are fully adjustable air deflectors, which can be set at any angle by rotating the deflector rings and also by moving the deflectors themselves.

The fan is equipped with an alternating motor, induction type, with no brushes. It is a six-blade fan, runs at 1,600 revolutions per minute, has a net air delivery of 525 cubic feet per minute. Power consumption is 60 watts per hour.

The condensing unit used is the Copeland Model X-1200.

WOULD PUT TEETH IN MINN. GAS TAX LAW

St. Paul, Minn., Nov. 16.—Changes in Minnesota's gasoline tax law to put teeth into it, will be recommended to the next Legislature by the state oil inspection division, George H. Griffith, state oil inspector, announced today. He said one of the important changes will be to require dealers to post a bond guaranteeing that the state gasoline tax will be paid.

Stewart, Diamond T and Hercules File Affidavits

(Continued from Page 1)

chairman of the Ordinance Advisory Committee of the U. S. Army and a member of the U. S. Army Quarter master's Advisory Committee on Motor Vehicles.

"The United States War Department, represented by the quartermaster general," Mr. Peirce stated, "has decided to adopt as standard for trucks for the transportation of man and munitions during peace and war, trucks of the assembled type."

"In the early days of the truck industry," Mr. Peirce continued, "as in the early days of every other industry in this country, a manufacturer was forced to make in his own shop practically every part that went into his product. A truck manufacturer then hammered out his own frame, turned his own valves, wound his own valve springs, etc.

"These were the days before specialization had become a dominant factor in our industrial world. But with the rapid rise of the automotive industry this was changed, and factories were built to make these individual parts, suiting them to the particular needs of the manufacturer who built the truck. So wheel factories, frame factories, tire plants, piston factories, etc., were built up.

"The truck manufacturers who had been making most of their own parts, either went out of business or started to buy units and parts which were suited to their needs.

"Mack Trucks, Inc., and the White Motor Company have been changing their policies with respect to the manufacturing of all the parts which are used in their trucks in the past few years, and are today buying some parts from parts manufacturers which they formerly made themselves.

"Affiant further states that the cost of overhauling an assembled truck is much less than that of a so-called manufactured truck."

Mr. Balough of Hercules said that "the experience of large fleet operators, many of whom have operated large fleets of both classifications of trucks, are a matter of record and a close analysis will undoubtedly prove that the specialized truck built by the co-called assembler has given equally as good satisfaction as the so-called manufactured truck." Mr. Balough added that most if not all "manufacturers" buy their "carburetors, ignition apparatus, universal joints, springs, frames—or at least their component parts—wheels and many other units and parts without interference to the idea of proper co-ordination."

Mr. Stewart held that "the terms 'manufactured' and 'assembled' motor trucks are misleading to the public. No manufacturer in the motor truck industry makes all of the units entering into his motor truck. Even Mr. Masury's company purchases its frame rails and frames from the Parrish Manufacturing Company, universal joints from the Spicer Manufacturing Company, roller bearings from the Timken Roller Bearing Company, etc." Mr. Stewart disputed Mr. Masury's statement that assemblers are transient in life, pointing out that "a number of so-called assembling companies in existence today were organized fifteen to twenty-five years ago."

N. J. TRADE BODIES WIN FIGHT AGAINST FREIGHT RATE BOOST

Newark, N. J., Nov. 16.—Because of protests by the Newark Chamber of Commerce and other trade bodies in this state, the board of public utility commissioner has suspended the new schedule of class freight rates between points within New Jersey which were to have become effective December 3. The utility board will hold a public hearing on the subject December 7.

If the rates were to go into effect, says D. R. Crotsley, chairman of the chamber's transportation committee, New Jersey shippers would be penalized by the payment of rates from 3 to 10 per cent. higher than they should be.

The trouble with the proposed schedule, Crotsley adds, is that they would become inflated by fictitious mileage due to grouping with New York. It is contended they should be fixed on an actual mileage basis.

The rates complained about, says Mr. Crotsley, include a marine service in New York Harbor that shipments between Newark, Atlantic City, Salem, Camden and other places within the state do not receive.

No less than sixteen chambers of commerce and other trade bodies have filed individual protests against the proposed rates. They will doubtless be represented at the hearing.

TEXAS COURT UPHOLDS TRUCK REGULATIONS

Waco, Tex., Nov. 16.—The Tenth Court of Civil Appeals, in an opinion handed down by a unanimous vote of the judges, upheld the constitutionality of House bill No. 335, which requires truck operators to hold permits from the Texas Railroad Commission.

The decision dissolved injunctions issued by Judge H. F. Kirby in District Court at Groesbeck, which restrained officers from arresting violators of the law. At the same time it upheld an injunction issued by Judge W. C. Davis in District Court at Bryan, restraining truck owners from violating provisions of the law.

LEASES FOR GARAGE

Trenton, N. J., Nov. 16.—W. H. Tantum, 3d, owner of the City Garage, has leased from the First Mechanics' National Bank the large brick building at South Stockton and East Front Sts. The place will be used as a service garage.

VALLEY STEEL PLANTS SHOW INCREASE FOR FOURTH WEEK ON END

(Continued From Page 1)

plants in the Youngstown district can better the current schedule, which represents full realization of predictions that district operations probably would advance as high as 40 per cent. before the end of the year.

Plants which lifted operations recently as a result of greater buying of steel by automobile parts makers this week maintained their gains in production. An example is Mahoning Empire Steel Corporation, owner of a sheet plant at Niles, O., which resumed production last week and is rolling two seven-day periods in succession for the first time in recent months.

Twenty-six of sixty-six open-hearth steel furnaces are now melting, providing the best index to the trend of steel operations. Last week only twenty-four such furnaces were active, while fourteen were active at the low point for the year.

SELLS SERVICE STATION

West New York, N. J., Nov. 16.—Samuel Goldberg has sold the general service station at 5058 Boulevard to Fred Wheeler of Jersey City.

IN THE EIGHT CYLINDER MARKET

HUPMOBILE

HAS AN EIGHT FOR EVERY PURSE

Eight cylinder buyers today want VALUE. They demand the guarantee of mechanical excellence which Hupmobile's twenty-three years of manufacturing experience gives them . . . for Hupmobile was an early pioneer in the eight cylinder field.

But more than that, eight cylinder buyers demand that extra value—that greater automobile value which only Hupmobile can give them in the fine car field. Remember, Hupmobile Eights are priced for every purse—from $1295 to $2555—and the Century Six establishes a new value at $995.

(Prices at the factory)

HUPP MOTOR CAR CORPORATION

DETROIT, MICHIGAN

"We Believe the Hupmobile to be the Best Car of its Class in the World"

New Large Boring Machine by Ex-Cell-O

(Continued from Page 8)

moves the locating fingers to align the pistons, the locking mechanism in the fixture lid locks the pistons by the skirt rigidly in place and the locating fingers are withdrawn. After these operations are completed the table carrying the fixture moves forward to the roughing position. After this operation the table is automatically reversed to the opposite end, where the pistons are finish bored. The table then returns to the center of the machine, the locking mechanism is released, the fixture head swings open and the pistons are pushed upward, ready for unloading.

Two separate hydraulically controlled units are used for boring both ends of the connecting rod. For locating the rod an adjustment center is provided at the crankshaft end of the rod and the other two centers are mounted in sliding plungers, each controlled and operated by a hydraulic cylinder. With the rod in its approximate locaators, it is resting on the lower permanent center at the crankshaft end and in the approximate nest of the piston pin end. After the rod is located the operator turns a valve which operates the hydraulic cylinders at the top and back of the fixture, carrying the movable centers into contact with the rod centers under spring tension, and then locks the centering sleeves securely. These two cylinders operate in succession, which insures that the crank end governing the end location of the rod is first clamped rigidly in position before clamping the piston pin end.

When the fixture is in operation a conical stream of coolant is directed in front and around the quill, supplying adequate coolant for the cut and flushing the chips ahead of the tool. The baffle plate completely incloses the unit in operation. The swinging back plate is mounted on a swivel between the two units, the swivel shaft operating a valve placed at the back of the fixture and directs the flow of the coolant to the unit in operation. As one rod is being bored the fixture on the opposite end is being unloaded and reloaded with a new connecting rod for boring, thereby obtaining maximum production from a fixture of this type.

Three transmission countershaft gears are bored in one operation. There are two bushings in each gear, one located at either end. In loading this fixture two cages are loaded over the ends of the gears and the entire unit is placed in the fixture. An approximate locater is provided on each side of the fixture for holding the gears and cages. After the gears are loaded the sliding section of the fixture moves into closed position, bringing the gears with the cages into place at either end of the fixture. Provision is made for holding the gears in accurate alignment. The gear in each station is locked in position by means of a lever at each end. At the bottom of the circular locating nest is placed a ledge to automatically pull the gear in a centralized position when the chuck is opened, insuring greater ease in removing the part after the boring operation.

A double end fixture, designed for boring transmission reverse idler gears, is equipped with two gear chucks located on each side of the fixture. This permits the loading of one end while the opposite end is in operation. The parts are clamped in the chucks by means of four master cam gears which insures the concentric registering of the pitch diameter of the gears. These master gears are hand operated by a level at the top of each chuck. A suitable spray nozzle for coolant is provided at the back of the chucks for cooling the tool and removing the chips. The coolant guards over each end of the fixture are connected to a pivoted arm at the back in such a manner that they balance each other and as one end is closed the opposite end is opened.

A double end fixture is designed for boring the bronze bushings in motor end frames. Two parts are loaded while two similar parts are being bored on the opposite side. The fixture is hydraulically operated, each side being individually controlled by a valve. The motor end frames are placed in large seating rings located on the circular dowel. After the parts are located they are held in position by means of spring tension clamps. An adjustment is provided for a range of diameters to be bored. Suitable coolant manifolds are placed in front of the part and as the boring quill enters the work, receives a cone-shaped stream of coolant, which follows the tool through the work, washing the chips ahead of the tool.

CURRENT PRICES OF PASSENGER CAR MODELS

AUBURN—8-98. 127 W. B.
Standard Models

2-dr Brougham	945	Con. Cabriolet	1,045
4-dr. Full Sedan	995	Con. Phae. Sed.	1,145
B Man's Coupe	995	Speedster	1145

AUBURN—8-98A. 127 W. B.
Custom Models

5 2-dr. Brough.	1,145	Cabriolet (R.S.)	1,245
5 4-dr. Sedan	1,195	5 Con. Pha. Sed.	1,345
B. Man's Coupe	1 195	Speedster	1345

AUBURN—8 Cyl. 136 W. B.
Standard Model

7 Sedan	1,195

AUBURN—8 Cyl. 136 W. B.
Custom Model

7 Sedan	1395

AUSTIN—4 Cyl. 75 W. B.

Business Coupe	330	De Luxe Coupe	525
Standard Coupe	395	2 Cabriolet	550
Runabout	395		

BUICK—8-cyl. 114 W. B.
Models 32-50

2 Business C'pe.	935	4 Con. Cp. Rdst.	1,080
5 Sedan	995	5 Spec. Sedan	1,080
4 Spec. Coupe	1,040	5 Con. Phaeton	1,090
5 Vic. Coupe	1,060	5 Spt. Phaeton	1,155

BUICK—8-cyl. 118 W. B.
Models 32-60

2 Busin's Coupe	1,250	5 Sedan	1,310
Spec. Coupe	1,290	5 Con. Phaeton	1,310
4 Con. Cp. Rdst.	1,310	5 Spt. Phaeton	1,390

BUICK—8-cyl. 126 W. B.
Models 32-80

5 Vic. Trav. Cp.	1,540	5 Sedan	1,570

BUICK—8-cyl. 134 W. B.
Models 32-90

7 Sport Phaeton	1,675	5 Club Sedan	1,820
4 C'try Club Cp.	1,740	5 Con. Phaeton	1,830
5 Vic. Coupe	1,785	7 Sedan	1,955
4 Con. Cp. Rdstr.	1,805	7 Limousine	2,055
5 Sedan	1,805		

CADILLAC—V-8. Fisher Custom. 134 W. B.

2 Coupe	2,695	2 Con. Coupe	2,945
5 Coupe	2,795	7 Sedan	2,945
5 Sedan	2,795	7 Imp. Sedan	3,095
5 Town Sedan	2,845	7 Touring (Fleet-	
2 Roadster	2,845	wood)	3,195
5 Phaeton	2,945	5 A. W Phae.	3 795

CADILLAC—V-12. 140 W. B.

2 Coupe	3,795	7 Sedan (143	
5 Coupe	3,895	W. B.)	4,195
5 Sedan	3,895	7 Touring	4,295
Roadster	3,945	7 Imperial Sedan	
5 Town Sedan	3,945	(143 W. B.)	4,345
Phaeton	4,045	A W. Phaeton	4,895
Con. Coupe	4,045		

CADILLAC—V-16. 148 W. B.
Fleetwood Custom.

2 Roadster	5,350	2 Coupe	6,850
A. W Phaeton	5,750	2 Con. Coupe	6,900
2 Coupe	5,800	5 Club Sedan	6,950
5 Coupe	5,950	5Sedan	6,950
5 Club Sedan	5,950	5 Sedan Cabrio	7,125
5 Sedan	5,950	7 Sedan	7,225
5 Sedan Cabrio	6,125	Imperial	7,300
7 Sedan	6,225	Imp. Cabriolet	7,350
5 Imperial	6,300	Imp. Sedan	7,525
5 Imp. Cabrio.	6,350	Town Cabriolet	
5 Phaeton	6,500	(Opera seats)	8,750
7 Imp Sedan	6,525	Town Cabriolet	
Town Cabriolet		(quarter win-	
(opera seats)	6,525	dows)	8,750
Town Cabriolet		Town Cabriolet	
(q'rter win.)	6,525	(leath quar'rs)	8,750
Town Cabriolet		Lim. Brougham	8,750
(full leather)	6,525	Town Brougham	9,200
Lim. Brough'm	6,525	Town Brougham	9,700

CHEVROLET—6-Cyl. 100 W. B.

2 Roadster	475	2-4 Sport Coupe	
2-4 Sp. Roadster	495	(5 windows)	575
5 Phaeton	510	5 Coupe	595
2 Coupe (3 win)	538	Con. Cabriolet	615
2 Coupe (5 win.)	645	5 Sedan	635
Coach	545	5 Special Sedan	650
		Lan. Phaeton	650

CHRYSLER—"6" 6-Cyl. *175¾ O. A.

Business Coupe		5 Sedan	895
(5 wire wheels)	865	5 Phaeton	915
2-4 Coupe (RS)	(5	2-4 Con. Coupe	
wire wheels)	885	(RS)	935
Roadster (RS)	885		

CHRYSLER—8-Cyl. *187¾ O. A.
De Luxe Models

Coupe (RS)	1,525	5 De L. Coupe	1,565
2-4 Roadster		4 Con. Coupe	
(RS)	1,545	(RS)	1,585
4-dr. Sedan	1,565	5 Phaeton	1,970

CHRYSLER—Imperial. 8-Cyl. 211 O. A.

5 Sedan	2,745	2-4 Cus. Coupe	3,150
5 Sedan (CIC)	2,845	Cus. Roadster	3,220
Sedan	2,945	Con. Coupe	3,320
7 Sedan Lim	3,145	Cus. Phaeton	3,575

COED—8-Cyl. 137½ W. B.

Sedan	2,395	Cabriolet	2,495
Brougham	2,395	Phaeton Sedan	2,595

DE SOTO—Six. *169⅝ O. A.

5 2-dr. Sedan	695	5 Touring	795
2 Stand. Coupe	740	2-4 Roadster	795
2-4 Coupe (RS)	775	2-4 Con. Coupe	
5 4-dr. Sedan	775	(RS)	825
		5 De Luxe Sedan	825

DE SOTO—8-Cyl. *177 O. A.

2 Business Coupe	965	5 Touring	1,035
2-4 Road. (RS)	995	5 De L. Sedan	1,065
2-4 De L Coupe		2-4 Con. Coupe	
(RS)	995	(RS)	1,075
5 4-Dr. Sedan	995		

DE VAUX—6 cyl. 113 W. B.

5 Stan. Sedan		5 Spt. Sedan	
(Painted		(5 wire wheels)	745
wheels)	685	5 Del. Coupe	
2-4 Stan. Coupe		(5 wire wheels)	795
(Painted		5 Custom Coupe	
wheels)	685	(6 wire wheels)	845
2-4 Spt. Coupe		5 Custom Sedan	
(5 wire wheels)	745	(6 wire wheels)	845

DODGE—6-Cyl. 114¼ W. B.

2 Coupe (5 wire		2 Coupe (6 wire	
wheels. R. M.)	815	wheels, 2 P. W.)	850
1 Coupe (4 wood		5 Sedan (5 wire	
wheels)	815	wheels, 1 F. W.)	860
2 Coupe (5 wire		5 Sedan (4 wood	
wheels, 1 P. W.	830	wheels, 1 P. W.)	860
2-4 Coupe (R. S.)		5 Phaeton (4 wood	
(5 wire wheels,		wheels)	865
R. M.)	835	2-4 Coupe (6 wire	
2-4 Coupe (R. S.)		wheels, 2 P. W.)	870
(4 wood wheels,		5 Sedan (4 wood	
R. M.)	835	wheels, 2 P. W.)	875
5 Sedan (5 wire		5 Sedan (6 wire	
wheels, R. M.)	845	wheels, 2 P. W.)	880
5 Sedan (4 wood		5 Sedan (6 dem.	
wheels, R. M.)	845	wood wheels, 2	
Roadster	850	P. W.)	890
2-4 Coupe (R. S.)			
(5 wire wheels,			
1 F. W.)	850		

DODGE—8-Cyl. 118½ W. B.

2-4 Coupe (R. S.)		5 Coupe	1135
(5 wire wheels,		5 Sedan (4 wood	
R. M.)	1,095	wheels, R. M.)	1,135
2 Coupe (5 wire		5 Sedan (5 wire	
wheels R.M.)	1,095	wheels, 1	
2-4 Coupe (4 wood		F. W.)	1,150
wheels)	1,095	5 Sedan (5 wood	
Roadster	1095	wheels, 2	
2-4 Coupe (6 wire		F. W.)	1,165
wheels, 2		5 Sedan (6 wire	
P. W.)	1,130	wheels, 2	
5 Sedan (5 wire		P. W.)	1,170
wheels, R.M.)	1,135		

DURANT—619 6-Cyl. 109 W. B.

5 4-dr. Sedan	695	5 4-dr. Sedan (6	
5 4-dr. Sedan (5		wire wheels)	785
wire wheels)	710		

DURANT—612 6-Cyl. 112 W. B.

Business Coupe		Sedan (5 wire	
(wood wheels)	760	wheels)	810
Business Coupe		5 Spt. Coupe (R.S.)	
(wire wheels)	775	(6 wire wheels)	830
Coupe (R. S.)		5 Spt. Road. (R. S.)	
(wood wheels)	780	(6 wire wheels)	845
Coupe (R. S.)		Sedan (6 wire	
(wire wheels)	795	wheels)	845
Sedan (wood			
wheels)	795		

DURANT—614 6-Cyl. 112 W. B.

De L. Coupe		De L. Sedan	
(6 dem. wood		(6 dem. wood	
wheels)	965	wheels)	995
De L. Coupe		De L. Sedan	
(6 dem. wire		(6 dem. wire	
wheels)	965	wheels)	995

ESSEX—6-Cyl. 113 W. B.

2 Coupe	595	5 Town Sedan	735
5 Coach	595	5 Touring Sedan	775
4 Coupe (R. S.)	645	Spec. Sedan	855
5 Stand. Sedan	695	7 Sedan (119 w.b.)	895
4 Sport Roadster	725		

FORD—Model A. 4-Cyl. 103½ W. B.

2 Roadster	430	5 De L. Phaeton	580
5 Phaeton	435	5 Standard Sedan	
2 De L. Roadster	475	(3 windows)	590
5 Tudor Sedan	490	4 Cabriolet	595
2 Coupe	490	5 4-dr. De Luxe	
4 Sport Coupe	500	Sedan (2 win.)	630
4 De L. Coupe	525	5 Town Sedan	630
5 De L. Tudor	525	5 Con. Sedan	640
4 Victoria	580		

FRANKLIN—Series 15. 125 W. B.
Transcontinent

5 Sedan	1,795	Vic. Brougham	1,895
Oxford Sedan	1,795	Town Sedan	1,925
Con. Coupe	1,895	Pursuit	1,995

FRANKLIN—Series 15. 132 W. B.
Transcontinent

Roadster (6 wire		7 Sedan	1,975
wheels)	1,845	Sport Salon	2,095
5 Sedan	1,895	Limousine	2,225

FRANKLIN—Series 15. 132 W. B.
De Luxe

Coupe	2,345	Vic. Brougham	2,495
5 Sedan	2,395	7 Sedan	2,595
Oxford Sedan	2,445	Limousine	2,695
Club Sedan	2,445		

FRANKLIN—Series 15. 132 W. B.
Special

Pirate Touring (6		Dietrich Town	
dem. wood		car	3,895
wheels)	2,395	Dietrich Berline	3,895
Pirate Touring (6		Derham Town	
wire wheels)	2,425	car (5 wire	
Speedster (5		wheels	3,895
wire wheels)	2545	Derham Berline (5	
Con. Speedster (5		wire wheels)	3,895
wire wheels)	2,695	Deauville Sedan (5	
		wire wheels)	3,950

FRANKLIN—Series 15. 132 W. B.
DeLuxe Custom

Derham Vic. Brougham			4,500

GRAHAM—Prosperity. 6-Cyl. 113 W. B.

Coupe	785	Sedan	825
Town Sedan	795	Coupe (R. S.)	825

GRAHAM—Standard. 6 cyl. 115 W. B.

Coupe	945	Coupe (R. S.)	985
Roadster (R. S.)	945	Sedan	995
5 Town Sedan	975		

GRAHAM—Special. 6 cyl. 115 W. B.

Coupe	985	Coupe (R. S.)	1,025
Roadster (R.S.)	985	Sedan	1,035
Town Sedan	1,015		

GRAHAM—Special. 8 cyl. 120 W. B

Coupe	1,185	Sport Sedan	1,235
Coupe (R. S.)	1,225	Sedan	1,285

GRAHAM—Custom. 8 cyl. 134 W. B.

Sedan	1,895	Limousine	2,145
7 Sedan	1,945		

HUDSON—8-cyl. 119 W. B.

2 Coupe	895	5 Town Sedan	948
5 Coach	895	5 Stand. Sedan	995
4 Coupe (R.S.)	925	Sport Roadster	995

HUDSON—8-cyl. 126 W. B.

5 Tour. Sedan	1,145	7 Spec Sedan	1,325
5 Brougham	1,195	5 DeL Brougham	1,375
7 Fam. Sedan	1,195	5 Club Sedan	1,445
7 Phaeton	1,295	7 Sedan	1,450

HUPMOBILE—Century 6. 114 W. B.

5 Sedan	995	Cabriolet (RS)	1,050
Com. Coupe	995	5 Phaeton	1,050
2 Coupe (R. S.)	995	Roadster (R. S.)	1,075

HUPMOBILE—Century 8. 118 W. B.

5 Sedan	1,295	2 Cabriolet (RS)	1 350
2 Coupe (R.S.)	1,295	5 Phaeton	1,350
2 Com. Coupe	1,295	2 Roadster (RS)	1,375

HUPMOBILE—Series C. 121 W. B.

5 Sedan	1,595	Victoria Coupe	1,615
2 Coupe (RS)	1,595	7 Spt. Phaeton	1,685
2 Cabriolet (RS)	1,595	5 Town Sedan	1,705
4 Coupe	1,615		

HUPMOBILE—Series B. 125 W. B.

5 Sedan	1,895	Victoria Coupe	1,915
2 Coupe (RS)	1,895	7 Spt. Phaeton	2,005
7 Cabriolet (RS)	1,895	5 Town Sedan	2,005
4 Coupe	1,915		

HUPMOBILE—Series U. 137 W. B.

7 Sedan	2,295	Sedan Limou	2,445
Victoria Coupe	2,295		

LA SALLE—8-cyl. 134 W. B.
Fisher Custom

2 Coupe	2,195	5 Town Sedan	2,345
5 Sedan	2,295	7 Sedan	2,475
2 Con. Coupe	2,295	7 Imp. Sedan	2,595
5 Coupe	2,295		

LA SALLE—8-cyl. 134 W. B.
Fleetwood Custom

2 Roadster	2,245	5 Sedanette	3,245
7 Touring	2,345	5 A. W. Phaeton	3,245
5 Sedan Cabrio.	3,245		

LINCOLN—8-cyl. 145 W. B.
Standard Models

4 Spt. Phaeton	4,400	4 Sport Phaeton	
7 Sport Touring	4,400	(T. C.)	4,600
5 Coupe	4,600	5 Sedan	4,700
5 Town Sedan		7 Sedan	4,900
(2 windows)	4,600	7 Limousine	5,100
Town Sedan			
(3 windows)	4,600		

LINCOLN—8-cyl. 145 W. B.
Custom Models

4 Con. Roadster	4,700	Con. Sedan	
2 Coupe		(Dietrich)	6,800
(Judkins)	5,200	A. W. Cabriolet	
4 Berline (2 win.)		N.C (LeBaron)	7,100
(Judkins)	5,800	A. W. Brougham	
Berline (3 win.)		(Brunn)	7,200
(Judkins)	5,800	A. W. Cabriolet	
Limousine		S.C (LeBaron)	7,300
(Willoughby)	6,100	A. W. Cabriolet	
Con. Phaeton		(Brunn)	7,400
(Derham)	6,200	Panel Brougham	
Con. Coupe		(Willoughby)	7,400
(Dietrich)	6,400		

MARMON—70. 112¾ W. B.

2 Stand. Coupe	950	4 Vic. Coupe	995
5 Sedan	995	2 Con. Coupe	1,045

MARMON—88. 130-136 W. B.

5 Sedan	1,895	2 Con. Coupe	2,395
5 Sedan	2,220	7 Sedan	2,495
5 Stand. Coupe	2,275	7 Limousine	2,595
5 Club Sedan	2,345		

MARMON—16-cyl. 145 W. B.

5 Sedan	5200	2 Con Coupe	5300
2 Coupe	5220	7 Sedan	5400
5 Cl Cp. Sedan	5270	5 Con. Sedan	5420
5 Victoria	5270	7 Limousine	5500

NASH—960—6-cyl. 114¼ W. B.

Coupe	795	4-dr. Sedan	845
2-dr. Sedan	795	Touring	895
Coupe (RS)	825		

NASH—970. 8-cyl. 116¼ W. B.

Coupe	945	4-dr. Sedan	995
4-dr. Spec. Sed.	955	4 Con. Sedan	1,075
Coupe (R. S.)	975		

NASH—980. 8-cyl. 121 W. B.

Coupe	1,245	4 Con. Sedan	1,325
Coupe (R. S.)	1,285	4-Dr. Town Sed.	1,375
4-dr. Sedan	1,295		

NASH—990. 8-cyl. 133 W. B.

4-dr. Sedan (124		Victoria	1,765
W. B.)	1,565	5 Sedan	1,825
7 Touring	1,595	7 Sedan	1,925
Cabriolet	1,695	7 Limousine	2,025
Coupe (R. S.)	1,745		

****OAKLAND—8-cyl. 117 W. B.**

Coupe	1,004	Con. Coupe	1,104
2-dr. Sedan	1,004	4-dr. Sedan	1,104
Sport Coupe	1,084	Custom Sedan	1,164

OLDSMOBILE—6-cyl. 113½ W. B.
Standard Models

2-dr. Sedan	845	4-dr. Sedan	925
Business Coupe	845	Con. Roadster	935
Sport Coupe	895	Patrician Sedan	960

(Recent price changes in bold face)

OLDSMOBILE—6-cyl. 113½ W. B.
De Luxe Models

2-dr. Sedan	910	4-dr. Sedan	990
Business Coupe	910	Con. Roadster	1,000
Sport Coupe	960	Patrician Sedan	1,025

PACKARD—8-cyl. 129½ W. B.

Sedan	2,485		

PACKARD—8-cyl. 136½ W. B.

5 Phaeton	2,650	5 Coupe	2,795
2-4 Coupe		7 Sedan	2,885
Roadster	2,650	5 Spt Phaeton	2,950
2 Coupe	2,675	7 Sedan	
5 Sedan	2,685	Limousine	2,985
7 Touring	2,775	5 Conv Victoria	3,395
5 Club Sedan	2,775	5 Conv. Sedan	3,445

PACKARD—8-cyl. 142½ W. B.

5 Phaeton	3,690	5 Coupe	3,850
2 Coupe	3,725	5 Club Sedan	3,890
2-4 Coupe		5 Spt. Phaeton	3,990
Roadster	3,750	5 Conv. Victoria	4,495
7 Touring	3,795	5 Conv. Sedan	4,550
5 Sedan	3,845		

PACKARD—8-cyl. 147¼ W. B.

7 Sedan	4,150	7 Sedan Lim	4,285

PEERLESS—Standard 8. 118 W. B.

5 Sedan	1,495	5 Brougham	1,545
2 Coupe (RS)	1,495	2 Cabriolet (RS)	1,595
5 Club Sedan	1,545		

PEERLESS—Master 8. 125 W. B.

5 Sedan	1,995	5 Brougham	2,045
2 Coupe (RS)	1,995	2 Cabriolet	2,095
5 Club Sedan	2,045		

PEERLESS—8-cyl. 125 W. B.
De Luxe Master

5 Sedan	2,320	Brougham	2,370
2 Coupe	2,320	Cabriolet	2,430
Club Sedan	2,370		

PEERLESS—Custom 8. 138 W. B.

2 Coupe (RS)	2,795	5 Brougham	2,845
5 Sedan	2,795	7 Sedan	2,945
5 Club Sedan	2,845	7 Limousine	3,145

PIERCE ARROW—8-cyl. 137 W. B.
Model 54

5 Club Br'gham	2,385	5 Tourer	2,750
5 Sedan	2,485	5 Club Berline	2,850
4 Coupe	2,485	5 Conv. Sedan	2,950
4 Con. Cp. Rdst.	2,650	5 Spt. Phaeton	3,050
5 Club sedan	2,650		

PIERCE ARROW—8-cyl. 142 W. B.
Model 54

7 Sedan	2,750	7 Enc. Dr. Lim.	2,950
7 Tourer	2,850		

PIERCE ARROW—12-cyl. 137-142 W. B.
Model 53

5 Club Broug.	3,185	5 Tourer	3,550
5 Sedan	3,285	5 Club Berline	3,650
4 Coupe	3,285	7 Tourer	3,650
5 Club Sedan	3,450	5 Conv. Sedan	3,750
4 Con. Cp. Rdstr	3,450	7 Encl. Dr. Lim.	3,750
7 Sedan	3,550	5 Sport Phaeton	3,850

PIERCE ARROW—12-cyl. 142-147 W. B.
Model 52

5 Sedan	3,785	7 Sedan	4,085
5 Club Sedan	3,885	7 Enc. Dr. Lim.	4,250
5 Club Berline	4,085		

PLYMOUTH—4-cyl. 170 O. A.

2 Bus. Roadster	535	5 Phaeton	595
2 Bus. Coupe	565	2 Coupe (R. S.)	610
5 2-dr. Sedan	575	4-dr. Sedan	635
4 Roadster (R.S.)	595	4 Con. Coupe	645

****PONTIAC—6-cyl. 112 W. B.**

2-dr. Sedan	779	Con. Coupe	849
Coupe	779	4-dr. Sedan	849
Sport Coupe	819	Custom Sedan	889

REO—6-21. 6-cyl. 121 W. B.

5 Sedan	995		

REO—8-21. 8-cyl. 121 W. B.

5 Sedan	1,195		

REO—8-25. 125 W. B.

Coupe	1,565	Sedan	1,565
Victoria	1,565		

REO ROYALE—8-cyl. 131 W. B.

Sedan Victoria	1,985	Coupe	1,985

REO ROYALE—8 cyl. 135 W. B.

Sedan	2,445	Con. Coupe	2,445
Coupe	2,445		

STUDEBAKER—Six. 114 W. B.

2 Bus. Coupe	845	Tourer	895
Roadster	895	Regal Tourer	970
5 4-dr. Sedan	895	5 Regal Sedan	
4 Coupe (RS)	895	(6 wire wheels)	970

STUDEBAKER—Commander 8-70. 124 W.B

4 Coupe	1,585	Regal Sedan	1,685
5 Sedan	1,585	5 Brougham	1,685
4 Victoria	1,585		

STUDEBAKER—Dictator. 8-cyl. 114 W. B.

2 Coupe	1,095	5 Sedan	1,150
4 Coupe	1,150	5 Regal Sedan	1,225

STUDEBAKER—President 8-80. 130 W. B.

5 Sedan	1,850	4 State Coupe	1,950
2 Coupe	1,850	5 State Sedan	1,950
4 State Road.	1,900		

STUDEBAKER—President 8-90. 136 W. B.

7 Tourer	1,850	5 Brougham	
7 State Tourer	2,050	(Cloth)	2250
7 Sedan	2,150	5 Brougham	
7 State Sedan	2,250	(Mohair)	2,290
State Victoria	2,250	7 Limousine	2,550

STUTZ—6-cyl. 127½ W. B.
LAA Series.

5 Sedan	1,620	2 Coupe	1,620
5 Coupe	1,620	Club Sedan	1,620

STUTZ—8-cyl. 134½ W. B.
SV-16 Standard

5 Coupe	2,695	2 Coupe	2,995
5 Sedan	2,995	Club Sedan	3,095

STUTZ—8-cyl. 134½ W. B.
SV-16 Custom

Cabriolet Coupe	3,345	4 Speedster	
2 Speedster	3,495	(Tonneau	
Torpedo Speed-		Cowl)	3,795
ster	3,595		

STUTZ—8-cyl. 134½ W. B.
SV-16 Salon

Continental Coupe (Waterhouse)	5,775

STUTZ—8-cyl. SV-16. 134½ W. B.
Chateau Series Weymann.

4 Weymann		5 Weymann	
Longchamps	4,345	Versailles	4,395

STUTZ—8-cyl. 145 W. B.
SV-16 Custom.

7 Sedan	3,895	7 Limousine	3,995
7 Speedster	3,895	Cab. Coupe	3,995
5 Sedan	3,895	5 Con. Sedan	4,395

STUTZ—8-cyl. 145 W. B.
SV-16 Salon.

5 Sedan		Prince of Wales	
(LeBaron)	4,595	(LeBaron)	6,245
6 Brougham		Con. Victoria	
(LeBaron)	4,795	(Rollston)	6,400
6 Sedan		4 Hollywood	
(LeBaron)	4,795	Sport Sedan	
6 Bro. Limousine		(Rollston)	7,095
(LeBaron)	4,995	Tuxedo Cab.	
6 Sed. Limousine		(Rollston)	7,095
(LeBaron)	4,995	Patrician Coupe	
7 Sed. Limousine		(Brunn)	7,095
(LeBaron)	4,995	7 Trans. Town Car	
7 Trans. Town Car		(Fleetwood)	7,495
(LeBaron)	5,495		

**STUTZ—8-cyl. SV-16. 145

4 Tet that Talk

A TREA$URER'$ LANGUAGE!

Massage Ipana
ON THOSE LAZY, TENDER GUMS!
NO MORE pink TOOTH BRUSH
Massage Ipana
ON THOSE LAZY, TENDER GUMS!
NO MORE pink TOOTH BRUSH

This 4-color back cover appeared in LIBERTY

This 4-color back cover appeared in Magazine X

TEST NUMBER 1

These 2 identical Ipana ads, part of the regular Ipana campaign, happened to run in Liberty and another weekly, while Gallup Reader-Interest Tabulations were going on. For every dollar invested in each, the Liberty ad (left) stopped 35% more persons than the ad in Magazine X (right).

TEST NUMBER 2

These 3 identical Ingram ads, part of the regular Ingram's campaign, happened to run during the same period in Liberty and two other weeklies. For every dollar invested in each, the Liberty ad (left) stopped 173% more persons than the ad in Magazine Y (center) and 40% more persons than the ad in Magazine Z (right).

These ads (left to right) appeared in double column space in LIBERTY, in Magazine Y, and in Ma

These ads appeared in double column space in LIBERTY (above, left) and in Magazine Y (above) and in Magazines X and Z (right)

TEST NUMBER 3

These 4 indentical Ingram ads also happened to run during the test period, in Liberty and three other weeklies. For every dollar invested in each, the Liberty ad (left) stopped 182% more persons than the ad in Magazine Y (left center), 42% more persons than the ad in Magazine X (right center) and 36% more persons than in Magazine Z (right).

TEST NUMBER 4

These 2 identical Sal Hepatica ads, a part of the regular Sal Hepatica campaign, happened to run in Liberty and another weekly during the Gallup Test period. For every dollar invested in each, the Liberty ad (left) stopped 25% more persons than the ad in Magazine X (right).

This double column ad appeared in LIBERTY

This double column ad appeared in Magazine

4 times this summer, Bristol-Myers happened to run duplicate ads in Liberty and other weeklies. 4 times the Liberty ad stopped more men and women per dollar cost than its duplicates in other weeklies . . . *stopped up to 182% more persons.*

If you think of copy first and media *second,* these 4 exhibits may shock you.

In each exhibit the ads are alike. Save that they ran in different magazines.

Yet that difference showed . . .

1. A difference of 35 per cent in the effectiveness of the Ipana ad, top left . . .
2. A difference of 40 to 173 per cent in the effectiveness of the first Ingram's Shaving Cream ad, top right . . .
3. A difference of 36 to 182 per cent in the effectiveness of the second Ingram's Shaving Cream ad, bottom left . . .
4. A difference of 25 per cent in the effectiveness of the Sal Hepatica ad, bottom right . . .

And in every case—4 times in a row—that margin of greater effectiveness was given by Liberty, America's best read weekly.

How The Facts Were Found

Last July and August, Dr. George Gallup of Northwestern University, and his staff of investigators, called on 15,000 homes.

Wherever they found a current copy of one of the 4 mass weeklies—in 6 cities, for 6 consecutive issues — they leafed through the magazine with the reader, checking every editorial item that had been (a) *seen* or (b) *read.*

Because this method of magazine evaluation was the first attempt to hurdle editorial judgments, circulation volume or circulation policies—being a tabulation of what readers actually *see* and *read*—the Association of National Advertisers officially observed the work in 3 of the 6 cities visited.

The findings in each of the 6 cities agree substantially with the 4 Bristol-Myers results. A summary shows that, unit-for-unit of circulation, the average page ad in Liberty was seen and remembered by:

23% more persons than in Weekly "X"
112% more persons than in Weekly "Y"
48% more persons than in Weekly "Z"

And Liberty's Post-Depression cost — down with commodity prices, 35% since 1926 — makes this greater effectiveness available with *larger* schedules, at no greater expense.

Why Ads MUST Do Better in Liberty

Ads were found more successful in Liberty too often to be an accident. And it couldn't have been a question of bulk . . . others of the magazines ran fewer pages than Liberty during many of these summer test weeks.

There are 3 definite reasons why ads MUST do better in Liberty:

1. Liberty is the big Post-War weekly . . . the only weekly built to order to fit the changed mental habits and cultural tastes of the people. It selects its famous authors and artists for their ability to hit dramatically concisely, simply, in tune with the times which are as different from Pre-War days as Ford is from Gandhi.
2. This fast-paced editorial matter is offered in a fast-paced mechanical make-up: Compact page size. Every story complete in consecutive pages. Every ad next to live matter, not buried among hidden runovers.
3. Desirability of this new publishing formula is proved by more men and women asking for "Liberty" every week than any other magazine in America. Liberty needs no expensive subscription activities to get circulation . . . 99 per cent of its circulation is copy-by-copy purchase . . . When 99 per cent of your ads enter homes which bought that issue to read it right away . . . is it any wonder that you get greater value than when only 15%, perhaps, enter with the same welcome?

Write For The Gallup Report

Many of the country's leading business executives have already seen full details of the 6 Gallup tests. Entire merchandising and advertising departments have had group meetings to discuss them. Tradition-free Treasurers, Presidents and General Managers, primarily concerned with new routes to profits, have taken sudden interest in their advertising plans, acted with dollars-and-cents contracts on these *First Facts* in the sea of advertising sentimentalities and generalities.

You, too, are invited to write for your copy. It will be presented by a Liberty representative. Address Liberty, 420 Lexington Avenue, New York City.

Liberty . . . *AMERICA'S* Best Read Weekly

Special Franchise Offer by REO

With Regular Dealer Discounts

VOLUME SALES *This Year*

Reo's new 1½-ton truck at $625 is producing *sales.* Built to revolutionize truck values, it is also revolutionizing the profit-outlook. Reo's Special Truck Franchise (with regular dealer discounts) is still available to a limited number of dealers who feel the need of a supplementary line. The investment is small — the market is vast. Mail the coupon!

Reo Trucks and Speed Wagons range from 1½-ton to 4 tons. Prices $625 to $2800, chassis f. o. b. Lansing.

SPECTACULAR VALUES IN PASSENGER CARS

Reo passenger cars, too, afford Dealers an exceptional opportunity for year-round profits. The quality is extraordinary — and the prices spectacular.

FLYING CLOUDS		REO-ROYALES	
6-21	$ 995	8-31	$1985
8-21	$1195	8-35	$2445
8-25	$1565	8-52 (7-Pass. Sedan)	$3695

Standard Model Prices — f. o. b. Lansing

REO MOTOR CAR COMPANY
LANSING · TORONTO

REO MOTOR CAR COMPANY, Lansing, Michigan. —N 117

Please send me at once—either by letter or through your representative—details of the Reo Special Truck Franchise.

Line(s) now handled_____

My Firm Name_____

Address_____ (City) _____ (State)

By_____